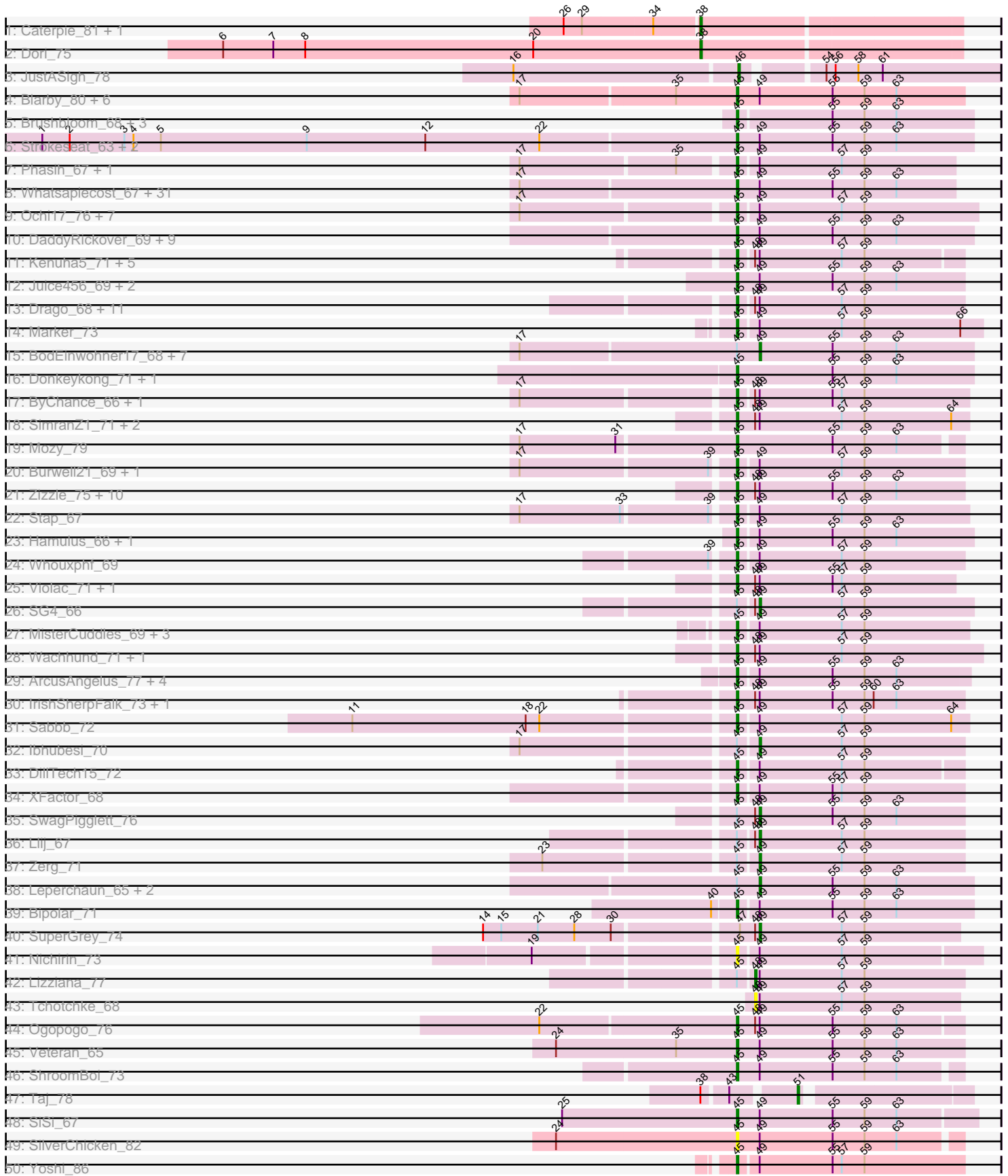
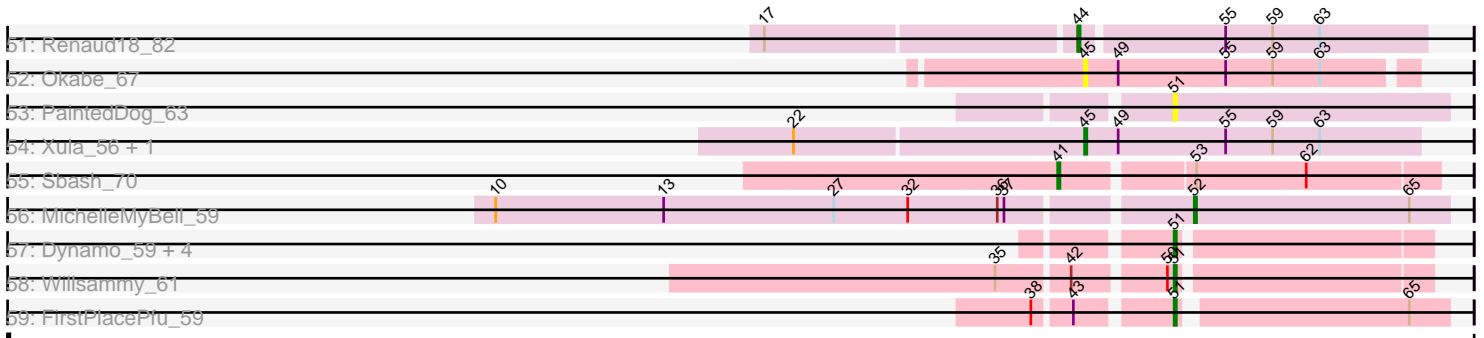


Pham 304744



Pham 304744



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 304744 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304744 has 177 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Caterpie_81, Sejanus_78
- Track 2 : Dori_75
- Track 3 : JustASigh_78
- Track 4 : Blarby_80, Kimberlium_72, MulchExplorer_71, QuickMath_71, Soul22_76, Jabbawokkie_82, Zapner_81
- Track 5 : Brushbloom_68, Byougenkin_66, Bobi_70, Batiatus_64
- Track 6 : Strokeseat_63, Hlubikazi_63, Mandlovu_63
- Track 7 : Phasih_67, Byougenkin_71
- Track 8 : Whatsapiecost_67, Melissauren88_65, Wee_73, Scottish_66, KingJulian_70, Ovechkin_67, DotProduct_62, Nimbo_61, Hegedechwinu_69, Gandalph_72, KingMidas_67, Akhila_58, Ms6_64, Seagreen_66, Slim_70, Emmaloid_70, Filuzino_66, Fruitloop_64, Corium_65, Clank_73, Shauna1_65, Deb65_62, DLane_63, StAnnes_67, Doomslug_79, Medindi_64, PatoPoderoso_65, Empress_66, Quico_75, Geralt_62, Rialto_73, Taj_73
- Track 9 : Ochi17_76, Jinglebell_77, AlpineSix_77, MadMen_70, Bubbles123_68, Llama_77, Seabastian_78, OfUltron_78
- Track 10 : DaddyRickover_69, Daenerys_67, Sassafras_68, JoeyJr_68, PHappiness_68, Inventum_65, RedBird_68, Kingsley_68, Dorothy_68, RitaG_68
- Track 11 : Kenuha5_71, Vivum_74, Totinger_70, GigiOuiOui_68, Madiba_76, Tweety_73
- Track 12 : Juice456_69, JalFarm20_81, KristaRAM_71
- Track 13 : Drago_68, DirtMcgirt_70, UncleRicky_70, Demsculpinboyz_83, Topiatin_77, Leozinho_72, Martik_74, Lucia_70, Alexphander_74, Enby_72, Maravista_74, Lorde_71
- Track 14 : Marker_73
- Track 15 : BodEinwohner17_68, MilanaBonita_57, DeadP_74, Florinda_78, Girafales_75, IbOuu_67, OldBen_65, Phanphagia_63
- Track 16 : Donkeykong_71, Jant_72
- Track 17 : ByChance_66, ShowerHandel_76
- Track 18 : SimranZ1_71, Radiance_69, Karhdo_69
- Track 19 : Mozy_79
- Track 20 : Burwell21_69, DoRead_74
- Track 21 : Zizzle_75, LastJedi_64, OlympiaSaint_72, Jarcob_72, Saal_72, Clifton_65, BobaPhett_75, DRBy19_76, Philus_75, Gorge_74, Mattes_74
- Track 22 : Stap_67
- Track 23 : Hamulus_66, Ardmore_58
- Track 24 : Whouxphf_69

- Track 25 : Violac_71, Mwanjiwa_76
- Track 26 : SG4_66
- Track 27 : MisterCuddles_69, Girr_69, Krakatau_67, Ruby_67
- Track 28 : Wachhund_71, Avani_79
- Track 29 : ArcusAngelus_77, Flathead_70, Chevrolet_79, Dante_68, ThetaBob_76
- Track 30 : IrishSherpFalk_73, WillSterrel_73
- Track 31 : Sabbb_72
- Track 32 : lbhubesi_70
- Track 33 : DillTech15_72
- Track 34 : XFactor_68
- Track 35 : SwagPiggett_76
- Track 36 : Llij_67
- Track 37 : Zerg_71
- Track 38 : Leperchaun_65, Polka14_71, Poenanya_70
- Track 39 : Bipolar_71
- Track 40 : SuperGrey_74
- Track 41 : Nichirin_73
- Track 42 : Lizziana_77
- Track 43 : Tchotchke_68
- Track 44 : Ogopogo_76
- Track 45 : Veteran_65
- Track 46 : ShroomBoi_73
- Track 47 : Taj_78
- Track 48 : SiSi_67
- Track 49 : SilverChicken_82
- Track 50 : Yoshi_86
- Track 51 : Renaud18_82
- Track 52 : Okabe_67
- Track 53 : PaintedDog_63
- Track 54 : Xula_56, QueenHazel_57
- Track 55 : Sbash_70
- Track 56 : MichelleMyBell_59
- Track 57 : Dynamo_59, HUHilltop_62, Sonah_60, Jebeks_60, Bhagsy_65
- Track 58 : Willsammy_61
- Track 59 : FirstPlacePfu_59

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

The start number called the most often in the published annotations is 45, it was called in 128 of the 160 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Akhila_58, Alexphander_74, AlpineSix_77, ArcusAngelus_77, Ardmore_58, Avani_79, Batiatus_64, Bipolar_71, Blarby_80, BobaPhett_75, Bobi_70, Brushbloom_68, Bubbles123_68, Burwell21_69, ByChance_66, Byougenkin_66, Byougenkin_71, Chevrolet_79, Clank_73, Clifton_65, Corium_65, DLane_63, DRBy19_76, DaddyRickover_69, Daenerys_67, Dante_68, Deb65_62, Demsculpinboyz_83, DillTech15_72, DirtMcgirt_70, DoRead_74, Donkeykong_71, Doomslug_79, Dorothy_68, DotProduct_62, Drago_68, Emmaloid_70, Empress_66, Enby_72, Filuzino_66, Flathead_70, Fruitloop_64, Gandolph_72, Geralt_62,

GigiOuiOui_68, Girr_69, Gorge_74, Hamulus_66, Hegedechwinu_69, Hlubikazi_63, Inventum_65, IrishSherpFalk_73, Jabbawokkie_82, JalFarm20_81, Jant_72, Jarcob_72, Jinglebell_77, JoeyJr_68, Juice456_69, Karhdo_69, Kenuha5_71, Kimberlium_72, KingJulian_70, KingMidas_67, Kingsley_68, Krakatau_67, KristaRAM_71, LastJedi_64, Leozinho_72, Llama_77, Lorde_71, Lucia_70, MadMen_70, Madiba_76, Mandlovu_63, Maravista_74, Marker_73, Martik_74, Mattes_74, Medindi_64, Melissauren88_65, MisterCuddles_69, Mozy_79, Ms6_64, MulchExplorer_71, Mwanjiwa_76, Nichirin_73, Nimbo_61, Ochi17_76, OfUltron_78, Ogopogo_76, Okabe_67, OlympiaSaint_72, Ovechkin_67, PHappiness_68, PatoPoderoso_65, Phasih_67, Philus_75, QueenHazel_57, QuickMath_71, Quico_75, Radiance_69, RedBird_68, Rialto_73, RitaG_68, Ruby_67, Saal_72, Sabb_72, Sassafras_68, Scottish_66, Seabastian_78, Seagreen_66, Shauna1_65, ShowerHandel_76, ShroomBoi_73, SiSi_67, SilverChicken_82, SimranZ1_71, Slim_70, Soul22_76, StAnnes_67, Stap_67, Strokeseat_63, Taj_73, ThetaBob_76, Topiatin_77, Totinger_70, Tweety_73, UncleRicky_70, Veteran_65, Violac_71, Vivum_74, Wachhund_71, Wee_73, Whatsapiecost_67, Whouxphf_69, WillSterrel_73, XFactor_68, Xula_56, Yoshi_86, Zapner_81, Zizzle_75,

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

- BodEinwohner17_68, DeadP_74, Florinda_78, Girafales_75, IbOuu_67, Ibhubesi_70, Leperchaun_65, Lizziana_77, Llij_67, MilanaBonita_57, OldBen_65, Phanphagia_63, Poenanya_70, Polka14_71, SG4_66, SwagPigglett_76, Zerg_71,

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

- Bhagsy_65, Caterpie_81, Dori_75, Dynamo_59, FirstPlacePfu_59, HUHilltop_62, Jebeks_60, JustASigh_78, MichelleMyBell_59, PaintedDog_63, Renaud18_82, Sbash_70, Sejanus_78, Sonah_60, SuperGrey_74, Taj_78, Tchotchke_68, Willsammy_61,

Summary by start number:

Start 38:

- Found in 5 of 177 (2.8%) of genes in pham
- Manual Annotations of this start: 2 of 160
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Caterpie_81 (AD), Dori_75 (AD), Sejanus_78 (AD),

Start 41:

- Found in 1 of 177 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sbash_70 (I2),

Start 44:

- Found in 1 of 177 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Renaud18_82 (F4),

Start 45:

- Found in 159 of 177 (89.8%) of genes in pham
- Manual Annotations of this start: 128 of 160

- Called 89.3% of time when present
- Phage (with cluster) where this start called: Akhila_58 (F1), Alexphander_74 (F1), AlpineSix_77 (F1), ArcusAngelus_77 (F1), Ardmore_58 (F1), Avani_79 (F2), Batiatus_64 (F1), Bipolar_71 (F1), Blarby_80 (F), BobaPhett_75 (F1), Bobi_70 (F1), Brushbloom_68 (F1), Bubbles123_68 (F1), Burwell21_69 (F1), ByChance_66 (F1), Byougenkin_66 (F1), Byougenkin_71 (F1), Chevrolet_79 (F1), Clank_73 (F), Clifton_65 (F1), Corium_65 (F1), DLane_63 (F1), DRBy19_76 (F1), DaddyRickover_69 (F1), Daenerys_67 (F1), Dante_68 (F1), Deb65_62 (F1), Demsculpinboyz_83 (F2), DillTech15_72 (F1), DirtMcgirt_70 (F1), DoRead_74 (F1), Donkeykong_71 (F1), Doomslug_79 (F), Dorothy_68 (F1), DotProduct_62 (F1), Drago_68 (F1), Emmaloid_70 (F1), Empress_66 (F1), Enby_72 (F1), Filuzino_66 (F1), Flathead_70 (F1), Fruitloop_64 (F1), Gandolph_72 (F1), Geralt_62 (F1), GigiOuiOui_68 (F1), Girr_69 (F1), Gorge_74 (F1), Hamulus_66 (F1), Hegedechwinu_69 (F1), Hlubikazi_63 (F1), Inventum_65 (F1), IrishSherpFalk_73 (F1), Jabbawokkie_82 (F2), JalFarm20_81 (F1), Jant_72 (F1), Jarcob_72 (F1), Jinglebell_77 (F1), JoeyJr_68 (F1), Juice456_69 (F1), Karhdo_69 (F1), Kenuha5_71 (F1), Kimberlium_72 (F1), KingJulian_70 (F1), KingMidas_67 (F1), Kingsley_68 (F1), Krakatau_67 (F1), KristaRAM_71 (F1), LastJedi_64 (F1), Leozinho_72 (F1), Llama_77 (F1), Lorde_71 (F1), Lucia_70 (F1), MadMen_70 (F1), Madiba_76 (F1), Mandlovu_63 (F1), Maravista_74 (F1), Marker_73 (F1), Martik_74 (F1), Mattes_74 (F1), Medindi_64 (F1), Melissauren88_65 (F1), MisterCuddles_69 (F1), Mozy_79 (F1), Ms6_64 (F1), MulchExplorer_71 (F1), Mwanjiwa_76 (F1), Nichirin_73 (F1), Nimbo_61 (F1), Ochi17_76 (F1), OfUltron_78 (F1), Ogopogo_76 (F1), Okabe_67 (F8), OlympiaSaint_72 (F1), Ovechkin_67 (F1), PHappiness_68 (F1), PatoPoderoso_65 (F1), Phasih_67 (F1), Philus_75 (F1), QueenHazel_57 (I1), QuickMath_71 (F1), Quico_75 (F1), Radiance_69 (F1), RedBird_68 (F1), Rialto_73 (F1), RitaG_68 (F1), Ruby_67 (F1), Saal_72 (F1), Sabbb_72 (F1), Sassafras_68 (F1), Scottish_66 (F1), Seabastian_78 (F1), Seagreen_66 (F1), Shauna1_65 (F1), ShowerHandel_76 (F1), ShroomBoi_73 (F1), SiSi_67 (F1), SilverChicken_82 (F2), SimranZ1_71 (F1), Slim_70 (F1), Soul22_76 (F2), StAnnes_67 (F1), Stap_67 (F1), Strokeseat_63 (F1), Taj_73 (F1), ThetaBob_76 (F4), Topiatin_77 (F1), Totinger_70 (F1), Tweety_73 (F1), UncleRicky_70 (F1), Veteran_65 (F1), Violac_71 (F1), Vivum_74 (F1), Wachhund_71 (F1), Wee_73 (F1), Whatsapiecost_67 (F1), Whouxphf_69 (F1), WillSterrel_73 (F1), XFactor_68 (F1), Xula_56 (I1), Yoshi_86 (F2), Zapner_81 (F2), Zizzle_75 (F1),

Start 46:

- Found in 1 of 177 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_78 (AH),

Start 48:

- Found in 47 of 177 (26.6%) of genes in pham
- Manual Annotations of this start: 1 of 160
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Lizziana_77 (F1), Tchotchke_68 (F1),

Start 49:

- Found in 154 of 177 (87.0%) of genes in pham
- Manual Annotations of this start: 17 of 160
- Called 11.0% of time when present

- Phage (with cluster) where this start called: BodEinwohner17_68 (F1), DeadP_74 (F1), Florinda_78 (F1), Girafales_75 (F1), IbOuu_67 (F1), lbhubesi_70 (F1), Leperchaun_65 (F1), Llij_67 (F1), MilanaBonita_57 (F1), OldBen_65 (F1), Phanphagia_63 (F1), Poenanya_70 (F1), Polka14_71 (F1), SG4_66 (F1), SuperGrey_74 (F1), SwagPiggett_76 (F1), Zerg_71 (F1),

Start 51:

- Found in 9 of 177 (5.1%) of genes in pham
- Manual Annotations of this start: 8 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bhagsy_65 (P1), Dynamo_59 (P1), FirstPlacePfu_59 (P1), HUHilltop_62 (P1), Jebeks_60 (P1), PaintedDog_63 (I1), Sonah_60 (P1), Taj_78 (F1), Willsammy_61 (P1),

Start 52:

- Found in 1 of 177 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 160
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MichelleMyBell_59 (N),

Summary by clusters:

There are 11 clusters represented in this pham: F1, F2, P1, F4, AD, F, F8, AH, I2, N, I1,

Info for manual annotations of cluster AD:

- Start number 38 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AH:

- Start number 46 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster F1:

- Start number 45 was manually annotated 119 times for cluster F1.
- Start number 48 was manually annotated 1 time for cluster F1.
- Start number 49 was manually annotated 17 times for cluster F1.
- Start number 51 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 45 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 44 was manually annotated 1 time for cluster F4.
- Start number 45 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster I1:

- Start number 45 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 41 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 52 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 51 was manually annotated 7 times for cluster P1.

Gene Information:

Gene: Akhila_58 Start: 38471, Stop: 38626, Start Num: 45

Candidate Starts for Akhila_58:

(17, 38333), (Start: 45 @38471 has 128 MA's), (Start: 49 @38486 has 17 MA's), (55, 38534), (59, 38555), (63, 38576),

Gene: Alexphander_74 Start: 46512, Stop: 46661, Start Num: 45

Candidate Starts for Alexphander_74:

(Start: 45 @46512 has 128 MA's), (Start: 48 @46521 has 1 MA's), (Start: 49 @46524 has 17 MA's), (57, 46578), (59, 46593),

Gene: AlpineSix_77 Start: 47155, Stop: 47310, Start Num: 45

Candidate Starts for AlpineSix_77:

(17, 47023), (Start: 45 @47155 has 128 MA's), (Start: 49 @47167 has 17 MA's), (57, 47221), (59, 47236),

Gene: ArcusAngelus_77 Start: 47419, Stop: 47568, Start Num: 45

Candidate Starts for ArcusAngelus_77:

(Start: 45 @47419 has 128 MA's), (Start: 49 @47431 has 17 MA's), (55, 47479), (59, 47500), (63, 47521),

Gene: Ardmore_58 Start: 40412, Stop: 40564, Start Num: 45

Candidate Starts for Ardmore_58:

(Start: 45 @40412 has 128 MA's), (Start: 49 @40424 has 17 MA's), (55, 40472), (59, 40493), (63, 40514),

Gene: Avani_79 Start: 44144, Stop: 44293, Start Num: 45

Candidate Starts for Avani_79:

(Start: 45 @44144 has 128 MA's), (Start: 48 @44156 has 1 MA's), (Start: 49 @44159 has 17 MA's), (57, 44213), (59, 44228),

Gene: Batiatus_64 Start: 42288, Stop: 42440, Start Num: 45

Candidate Starts for Batiatus_64:

(Start: 45 @42288 has 128 MA's), (55, 42348), (59, 42369), (63, 42390),

Gene: Bhagsy_65 Start: 41269, Stop: 41373, Start Num: 51

Candidate Starts for Bhagsy_65:

(Start: 51 @41269 has 8 MA's),

Gene: Bipolar_71 Start: 44507, Stop: 44659, Start Num: 45

Candidate Starts for Bipolar_71:

(40, 44495), (Start: 45 @44507 has 128 MA's), (Start: 49 @44519 has 17 MA's), (55, 44567), (59, 44588), (63, 44609),

Gene: Blarby_80 Start: 44685, Stop: 44834, Start Num: 45

Candidate Starts for Blarby_80:

(17, 44547), (35, 44646), (Start: 45 @44685 has 128 MA's), (Start: 49 @44700 has 17 MA's), (55, 44748), (59, 44769), (63, 44790),

Gene: BobaPhett_75 Start: 48236, Stop: 48385, Start Num: 45

Candidate Starts for BobaPhett_75:

(Start: 45 @48236 has 128 MA's), (Start: 48 @48248 has 1 MA's), (Start: 49 @48251 has 17 MA's), (55, 48299), (59, 48320), (63, 48341),

Gene: Bobi_70 Start: 43891, Stop: 44043, Start Num: 45

Candidate Starts for Bobi_70:

(Start: 45 @43891 has 128 MA's), (55, 43951), (59, 43972), (63, 43993),

Gene: BodEinwohner17_68 Start: 43061, Stop: 43201, Start Num: 49

Candidate Starts for BodEinwohner17_68:

(17, 42908), (Start: 45 @43046 has 128 MA's), (Start: 49 @43061 has 17 MA's), (55, 43109), (59, 43130), (63, 43151),

Gene: Brushbloom_68 Start: 43220, Stop: 43372, Start Num: 45

Candidate Starts for Brushbloom_68:

(Start: 45 @43220 has 128 MA's), (55, 43280), (59, 43301), (63, 43322),

Gene: Bubbles123_68 Start: 45742, Stop: 45888, Start Num: 45

Candidate Starts for Bubbles123_68:

(17, 45610), (Start: 45 @45742 has 128 MA's), (Start: 49 @45754 has 17 MA's), (57, 45808), (59, 45823),

Gene: Burwell21_69 Start: 45551, Stop: 45697, Start Num: 45

Candidate Starts for Burwell21_69:

(17, 45419), (39, 45539), (Start: 45 @45551 has 128 MA's), (Start: 49 @45563 has 17 MA's), (57, 45617), (59, 45632),

Gene: ByChance_66 Start: 42651, Stop: 42800, Start Num: 45

Candidate Starts for ByChance_66:

(17, 42519), (Start: 45 @42651 has 128 MA's), (Start: 48 @42660 has 1 MA's), (Start: 49 @42663 has 17 MA's), (55, 42711), (57, 42717), (59, 42732),

Gene: Byougenkin_71 Start: 43611, Stop: 43757, Start Num: 45

Candidate Starts for Byougenkin_71:

(17, 43479), (35, 43578), (Start: 45 @43611 has 128 MA's), (Start: 49 @43623 has 17 MA's), (57, 43677), (59, 43692),

Gene: Byougenkin_66 Start: 42551, Stop: 42703, Start Num: 45

Candidate Starts for Byougenkin_66:

(Start: 45 @42551 has 128 MA's), (55, 42611), (59, 42632), (63, 42653),

Gene: Caterpie_81 Start: 55418, Stop: 55582, Start Num: 38

Candidate Starts for Caterpie_81:

(26, 55334), (29, 55346), (34, 55391), (Start: 38 @55418 has 2 MA's),

Gene: Chevrolet_79 Start: 47420, Stop: 47569, Start Num: 45

Candidate Starts for Chevrolet_79:

(Start: 45 @47420 has 128 MA's), (Start: 49 @47432 has 17 MA's), (55, 47480), (59, 47501), (63, 47522),

Gene: Clank_73 Start: 44016, Stop: 44165, Start Num: 45

Candidate Starts for Clank_73:

(17, 43878), (Start: 45 @44016 has 128 MA's), (Start: 49 @44031 has 17 MA's), (55, 44079), (59, 44100), (63, 44121),

Gene: Clifton_65 Start: 44067, Stop: 44216, Start Num: 45

Candidate Starts for Clifton_65:

(Start: 45 @44067 has 128 MA's), (Start: 48 @44079 has 1 MA's), (Start: 49 @44082 has 17 MA's), (55, 44130), (59, 44151), (63, 44172),

Gene: Corium_65 Start: 44016, Stop: 44159, Start Num: 45

Candidate Starts for Corium_65:

(17, 43878), (Start: 45 @44016 has 128 MA's), (Start: 49 @44031 has 17 MA's), (55, 44079), (59, 44100), (63, 44121),

Gene: DLane_63 Start: 42015, Stop: 42170, Start Num: 45

Candidate Starts for DLane_63:

(17, 41877), (Start: 45 @42015 has 128 MA's), (Start: 49 @42030 has 17 MA's), (55, 42078), (59, 42099), (63, 42120),

Gene: DRBy19_76 Start: 47796, Stop: 47945, Start Num: 45

Candidate Starts for DRBy19_76:

(Start: 45 @47796 has 128 MA's), (Start: 48 @47808 has 1 MA's), (Start: 49 @47811 has 17 MA's), (55, 47859), (59, 47880), (63, 47901),

Gene: DaddyRickover_69 Start: 43982, Stop: 44137, Start Num: 45

Candidate Starts for DaddyRickover_69:

(Start: 45 @43982 has 128 MA's), (Start: 49 @43997 has 17 MA's), (55, 44045), (59, 44066), (63, 44087),

Gene: Daenerys_67 Start: 44101, Stop: 44256, Start Num: 45

Candidate Starts for Daenerys_67:

(Start: 45 @44101 has 128 MA's), (Start: 49 @44116 has 17 MA's), (55, 44164), (59, 44185), (63, 44206),

Gene: Dante_68 Start: 43688, Stop: 43840, Start Num: 45

Candidate Starts for Dante_68:

(Start: 45 @43688 has 128 MA's), (Start: 49 @43700 has 17 MA's), (55, 43748), (59, 43769), (63, 43790),

Gene: DeadP_74 Start: 45444, Stop: 45578, Start Num: 49

Candidate Starts for DeadP_74:

(17, 45291), (Start: 45 @45429 has 128 MA's), (Start: 49 @45444 has 17 MA's), (55, 45492), (59, 45513), (63, 45534),

Gene: Deb65_62 Start: 41821, Stop: 41976, Start Num: 45

Candidate Starts for Deb65_62:

(17, 41683), (Start: 45 @41821 has 128 MA's), (Start: 49 @41836 has 17 MA's), (55, 41884), (59, 41905), (63, 41926),

Gene: Demsculpinboyz_83 Start: 44211, Stop: 44369, Start Num: 45
Candidate Starts for Demsculpinboyz_83:
(Start: 45 @44211 has 128 MA's), (Start: 48 @44223 has 1 MA's), (Start: 49 @44226 has 17 MA's),
(57, 44280), (59, 44295),

Gene: DillTech15_72 Start: 44035, Stop: 44178, Start Num: 45
Candidate Starts for DillTech15_72:
(Start: 45 @44035 has 128 MA's), (Start: 49 @44047 has 17 MA's), (57, 44101), (59, 44116),

Gene: DirtMcgirt_70 Start: 42990, Stop: 43136, Start Num: 45
Candidate Starts for DirtMcgirt_70:
(Start: 45 @42990 has 128 MA's), (Start: 48 @42999 has 1 MA's), (Start: 49 @43002 has 17 MA's),
(57, 43056), (59, 43071),

Gene: DoRead_74 Start: 44318, Stop: 44464, Start Num: 45
Candidate Starts for DoRead_74:
(17, 44186), (39, 44306), (Start: 45 @44318 has 128 MA's), (Start: 49 @44330 has 17 MA's), (57,
44384), (59, 44399),

Gene: Donkeykong_71 Start: 45836, Stop: 45991, Start Num: 45
Candidate Starts for Donkeykong_71:
(Start: 45 @45836 has 128 MA's), (55, 45899), (59, 45920), (63, 45941),

Gene: Doomslug_79 Start: 43911, Stop: 44066, Start Num: 45
Candidate Starts for Doomslug_79:
(17, 43773), (Start: 45 @43911 has 128 MA's), (Start: 49 @43926 has 17 MA's), (55, 43974), (59,
43995), (63, 44016),

Gene: Dori_75 Start: 56198, Stop: 56362, Start Num: 38
Candidate Starts for Dori_75:
(6, 55886), (7, 55919), (8, 55940), (20, 56090), (Start: 38 @56198 has 2 MA's),

Gene: Dorothy_68 Start: 43156, Stop: 43311, Start Num: 45
Candidate Starts for Dorothy_68:
(Start: 45 @43156 has 128 MA's), (Start: 49 @43171 has 17 MA's), (55, 43219), (59, 43240), (63,
43261),

Gene: DotProduct_62 Start: 41324, Stop: 41479, Start Num: 45
Candidate Starts for DotProduct_62:
(17, 41186), (Start: 45 @41324 has 128 MA's), (Start: 49 @41339 has 17 MA's), (55, 41387), (59,
41408), (63, 41429),

Gene: Drago_68 Start: 42993, Stop: 43139, Start Num: 45
Candidate Starts for Drago_68:
(Start: 45 @42993 has 128 MA's), (Start: 48 @43002 has 1 MA's), (Start: 49 @43005 has 17 MA's),
(57, 43059), (59, 43074),

Gene: Dynamo_59 Start: 39180, Stop: 39284, Start Num: 51
Candidate Starts for Dynamo_59:
(Start: 51 @39180 has 8 MA's),

Gene: Emmaloid_70 Start: 44558, Stop: 44713, Start Num: 45
Candidate Starts for Emmaloid_70:

(17, 44420), (Start: 45 @44558 has 128 MA's), (Start: 49 @44573 has 17 MA's), (55, 44621), (59, 44642), (63, 44663),

Gene: Empress_66 Start: 43265, Stop: 43420, Start Num: 45

Candidate Starts for Empress_66:

(17, 43127), (Start: 45 @43265 has 128 MA's), (Start: 49 @43280 has 17 MA's), (55, 43328), (59, 43349), (63, 43370),

Gene: Enby_72 Start: 43269, Stop: 43415, Start Num: 45

Candidate Starts for Enby_72:

(Start: 45 @43269 has 128 MA's), (Start: 48 @43278 has 1 MA's), (Start: 49 @43281 has 17 MA's), (57, 43335), (59, 43350),

Gene: Filuzino_66 Start: 42350, Stop: 42505, Start Num: 45

Candidate Starts for Filuzino_66:

(17, 42212), (Start: 45 @42350 has 128 MA's), (Start: 49 @42365 has 17 MA's), (55, 42413), (59, 42434), (63, 42455),

Gene: FirstPlacePfu_59 Start: 37654, Stop: 37764, Start Num: 51

Candidate Starts for FirstPlacePfu_59:

(Start: 38 @37603 has 2 MA's), (43, 37618), (Start: 51 @37654 has 8 MA's), (65, 37747),

Gene: Flathead_70 Start: 44683, Stop: 44823, Start Num: 45

Candidate Starts for Flathead_70:

(Start: 45 @44683 has 128 MA's), (Start: 49 @44695 has 17 MA's), (55, 44743), (59, 44764), (63, 44785),

Gene: Florinda_78 Start: 44511, Stop: 44651, Start Num: 49

Candidate Starts for Florinda_78:

(17, 44358), (Start: 45 @44496 has 128 MA's), (Start: 49 @44511 has 17 MA's), (55, 44559), (59, 44580), (63, 44601),

Gene: Fruitloop_64 Start: 43656, Stop: 43811, Start Num: 45

Candidate Starts for Fruitloop_64:

(17, 43518), (Start: 45 @43656 has 128 MA's), (Start: 49 @43671 has 17 MA's), (55, 43719), (59, 43740), (63, 43761),

Gene: Gandalph_72 Start: 43639, Stop: 43785, Start Num: 45

Candidate Starts for Gandalph_72:

(17, 43501), (Start: 45 @43639 has 128 MA's), (Start: 49 @43654 has 17 MA's), (55, 43702), (59, 43723), (63, 43744),

Gene: Geralt_62 Start: 41820, Stop: 41975, Start Num: 45

Candidate Starts for Geralt_62:

(17, 41682), (Start: 45 @41820 has 128 MA's), (Start: 49 @41835 has 17 MA's), (55, 41883), (59, 41904), (63, 41925),

Gene: GigiOuiOui_68 Start: 45285, Stop: 45428, Start Num: 45

Candidate Starts for GigiOuiOui_68:

(Start: 45 @45285 has 128 MA's), (Start: 48 @45294 has 1 MA's), (Start: 49 @45297 has 17 MA's), (57, 45351), (59, 45366),

Gene: Girafales_75 Start: 44302, Stop: 44442, Start Num: 49

Candidate Starts for Girafales_75:

(17, 44149), (Start: 45 @44287 has 128 MA's), (Start: 49 @44302 has 17 MA's), (55, 44350), (59, 44371), (63, 44392),

Gene: Girr_69 Start: 45990, Stop: 46139, Start Num: 45

Candidate Starts for Girr_69:

(Start: 45 @45990 has 128 MA's), (Start: 49 @46002 has 17 MA's), (57, 46056), (59, 46071),

Gene: Gorge_74 Start: 47006, Stop: 47155, Start Num: 45

Candidate Starts for Gorge_74:

(Start: 45 @47006 has 128 MA's), (Start: 48 @47018 has 1 MA's), (Start: 49 @47021 has 17 MA's), (55, 47069), (59, 47090), (63, 47111),

Gene: HUHilltop_62 Start: 39403, Stop: 39507, Start Num: 51

Candidate Starts for HUHilltop_62:

(Start: 51 @39403 has 8 MA's),

Gene: Hamulus_66 Start: 42697, Stop: 42849, Start Num: 45

Candidate Starts for Hamulus_66:

(Start: 45 @42697 has 128 MA's), (Start: 49 @42709 has 17 MA's), (55, 42757), (59, 42778), (63, 42799),

Gene: Hegedechwinu_69 Start: 42429, Stop: 42584, Start Num: 45

Candidate Starts for Hegedechwinu_69:

(17, 42291), (Start: 45 @42429 has 128 MA's), (Start: 49 @42444 has 17 MA's), (55, 42492), (59, 42513), (63, 42534),

Gene: Hlubikazi_63 Start: 40435, Stop: 40590, Start Num: 45

Candidate Starts for Hlubikazi_63:

(1, 39982), (2, 40000), (3, 40036), (4, 40042), (5, 40060), (9, 40156), (12, 40234), (22, 40309), (Start: 45 @40435 has 128 MA's), (Start: 49 @40450 has 17 MA's), (55, 40498), (59, 40519), (63, 40540),

Gene: lbOuu_67 Start: 43885, Stop: 44019, Start Num: 49

Candidate Starts for lbOuu_67:

(17, 43732), (Start: 45 @43870 has 128 MA's), (Start: 49 @43885 has 17 MA's), (55, 43933), (59, 43954), (63, 43975),

Gene: lbhubesi_70 Start: 43411, Stop: 43545, Start Num: 49

Candidate Starts for lbhubesi_70:

(17, 43267), (Start: 45 @43399 has 128 MA's), (Start: 49 @43411 has 17 MA's), (57, 43465), (59, 43480),

Gene: Inventum_65 Start: 43354, Stop: 43509, Start Num: 45

Candidate Starts for Inventum_65:

(Start: 45 @43354 has 128 MA's), (Start: 49 @43369 has 17 MA's), (55, 43417), (59, 43438), (63, 43459),

Gene: IrishSherpFalk_73 Start: 46468, Stop: 46617, Start Num: 45

Candidate Starts for IrishSherpFalk_73:

(Start: 45 @46468 has 128 MA's), (Start: 48 @46480 has 1 MA's), (Start: 49 @46483 has 17 MA's), (55, 46531), (59, 46552), (60, 46558), (63, 46573),

Gene: Jabbawokkie_82 Start: 44605, Stop: 44754, Start Num: 45

Candidate Starts for Jabbawokkie_82:

(17, 44467), (35, 44566), (Start: 45 @44605 has 128 MA's), (Start: 49 @44620 has 17 MA's), (55, 44668), (59, 44689), (63, 44710),

Gene: JalFarm20_81 Start: 47224, Stop: 47373, Start Num: 45

Candidate Starts for JalFarm20_81:

(Start: 45 @47224 has 128 MA's), (Start: 49 @47239 has 17 MA's), (55, 47287), (59, 47308), (63, 47329),

Gene: Jant_72 Start: 44995, Stop: 45144, Start Num: 45

Candidate Starts for Jant_72:

(Start: 45 @44995 has 128 MA's), (55, 45058), (59, 45079), (63, 45100),

Gene: Jarcob_72 Start: 46728, Stop: 46877, Start Num: 45

Candidate Starts for Jarcob_72:

(Start: 45 @46728 has 128 MA's), (Start: 48 @46740 has 1 MA's), (Start: 49 @46743 has 17 MA's), (55, 46791), (59, 46812), (63, 46833),

Gene: Jebeks_60 Start: 38700, Stop: 38804, Start Num: 51

Candidate Starts for Jebeks_60:

(Start: 51 @38700 has 8 MA's),

Gene: Jinglebell_77 Start: 47154, Stop: 47309, Start Num: 45

Candidate Starts for Jinglebell_77:

(17, 47022), (Start: 45 @47154 has 128 MA's), (Start: 49 @47166 has 17 MA's), (57, 47220), (59, 47235),

Gene: JoeyJr_68 Start: 44269, Stop: 44424, Start Num: 45

Candidate Starts for JoeyJr_68:

(Start: 45 @44269 has 128 MA's), (Start: 49 @44284 has 17 MA's), (55, 44332), (59, 44353), (63, 44374),

Gene: Juice456_69 Start: 45180, Stop: 45329, Start Num: 45

Candidate Starts for Juice456_69:

(Start: 45 @45180 has 128 MA's), (Start: 49 @45195 has 17 MA's), (55, 45243), (59, 45264), (63, 45285),

Gene: JustASigh_78 Start: 48902, Stop: 49060, Start Num: 46

Candidate Starts for JustASigh_78:

(16, 48758), (Start: 46 @48902 has 1 MA's), (54, 48947), (56, 48953), (58, 48968), (61, 48983),

Gene: Karhdo_69 Start: 44419, Stop: 44571, Start Num: 45

Candidate Starts for Karhdo_69:

(Start: 45 @44419 has 128 MA's), (Start: 48 @44431 has 1 MA's), (Start: 49 @44434 has 17 MA's), (57, 44488), (59, 44503), (64, 44560),

Gene: Kenuha5_71 Start: 47003, Stop: 47146, Start Num: 45

Candidate Starts for Kenuha5_71:

(Start: 45 @47003 has 128 MA's), (Start: 48 @47012 has 1 MA's), (Start: 49 @47015 has 17 MA's), (57, 47069), (59, 47084),

Gene: Kimberlium_72 Start: 44776, Stop: 44925, Start Num: 45

Candidate Starts for Kimberlium_72:

(17, 44638), (35, 44737), (Start: 45 @44776 has 128 MA's), (Start: 49 @44791 has 17 MA's), (55, 44839), (59, 44860), (63, 44881),

Gene: KingJulian_70 Start: 44016, Stop: 44159, Start Num: 45

Candidate Starts for KingJulian_70:

(17, 43878), (Start: 45 @44016 has 128 MA's), (Start: 49 @44031 has 17 MA's), (55, 44079), (59, 44100), (63, 44121),

Gene: KingMidas_67 Start: 43681, Stop: 43836, Start Num: 45

Candidate Starts for KingMidas_67:

(17, 43543), (Start: 45 @43681 has 128 MA's), (Start: 49 @43696 has 17 MA's), (55, 43744), (59, 43765), (63, 43786),

Gene: Kingsley_68 Start: 45553, Stop: 45708, Start Num: 45

Candidate Starts for Kingsley_68:

(Start: 45 @45553 has 128 MA's), (Start: 49 @45568 has 17 MA's), (55, 45616), (59, 45637), (63, 45658),

Gene: Krakatau_67 Start: 42370, Stop: 42519, Start Num: 45

Candidate Starts for Krakatau_67:

(Start: 45 @42370 has 128 MA's), (Start: 49 @42382 has 17 MA's), (57, 42436), (59, 42451),

Gene: KristaRAM_71 Start: 45549, Stop: 45698, Start Num: 45

Candidate Starts for KristaRAM_71:

(Start: 45 @45549 has 128 MA's), (Start: 49 @45564 has 17 MA's), (55, 45612), (59, 45633), (63, 45654),

Gene: LastJedi_64 Start: 44110, Stop: 44259, Start Num: 45

Candidate Starts for LastJedi_64:

(Start: 45 @44110 has 128 MA's), (Start: 48 @44122 has 1 MA's), (Start: 49 @44125 has 17 MA's), (55, 44173), (59, 44194), (63, 44215),

Gene: Leozinho_72 Start: 43788, Stop: 43934, Start Num: 45

Candidate Starts for Leozinho_72:

(Start: 45 @43788 has 128 MA's), (Start: 48 @43797 has 1 MA's), (Start: 49 @43800 has 17 MA's), (57, 43854), (59, 43869),

Gene: Leperchaun_65 Start: 43514, Stop: 43654, Start Num: 49

Candidate Starts for Leperchaun_65:

(Start: 45 @43499 has 128 MA's), (Start: 49 @43514 has 17 MA's), (55, 43562), (59, 43583), (63, 43604),

Gene: Lizziana_77 Start: 47466, Stop: 47603, Start Num: 48

Candidate Starts for Lizziana_77:

(Start: 45 @47457 has 128 MA's), (Start: 48 @47466 has 1 MA's), (Start: 49 @47469 has 17 MA's), (57, 47523), (59, 47538),

Gene: Llama_77 Start: 47009, Stop: 47164, Start Num: 45

Candidate Starts for Llama_77:

(17, 46877), (Start: 45 @47009 has 128 MA's), (Start: 49 @47021 has 17 MA's), (57, 47075), (59, 47090),

Gene: Llij_67 Start: 43159, Stop: 43293, Start Num: 49

Candidate Starts for Llij_67:

(Start: 45 @43147 has 128 MA's), (Start: 48 @43156 has 1 MA's), (Start: 49 @43159 has 17 MA's), (57, 43213), (59, 43228),

Gene: Lorde_71 Start: 42434, Stop: 42580, Start Num: 45

Candidate Starts for Lorde_71:

(Start: 45 @42434 has 128 MA's), (Start: 48 @42443 has 1 MA's), (Start: 49 @42446 has 17 MA's), (57, 42500), (59, 42515),

Gene: Lucia_70 Start: 43282, Stop: 43428, Start Num: 45

Candidate Starts for Lucia_70:

(Start: 45 @43282 has 128 MA's), (Start: 48 @43291 has 1 MA's), (Start: 49 @43294 has 17 MA's), (57, 43348), (59, 43363),

Gene: MadMen_70 Start: 44751, Stop: 44891, Start Num: 45

Candidate Starts for MadMen_70:

(17, 44619), (Start: 45 @44751 has 128 MA's), (Start: 49 @44763 has 17 MA's), (57, 44817), (59, 44832),

Gene: Madiba_76 Start: 47567, Stop: 47716, Start Num: 45

Candidate Starts for Madiba_76:

(Start: 45 @47567 has 128 MA's), (Start: 48 @47576 has 1 MA's), (Start: 49 @47579 has 17 MA's), (57, 47633), (59, 47648),

Gene: Mandlovu_63 Start: 40377, Stop: 40532, Start Num: 45

Candidate Starts for Mandlovu_63:

(1, 39924), (2, 39942), (3, 39978), (4, 39984), (5, 40002), (9, 40098), (12, 40176), (22, 40251), (Start: 45 @40377 has 128 MA's), (Start: 49 @40392 has 17 MA's), (55, 40440), (59, 40461), (63, 40482),

Gene: Maravista_74 Start: 48467, Stop: 48613, Start Num: 45

Candidate Starts for Maravista_74:

(Start: 45 @48467 has 128 MA's), (Start: 48 @48476 has 1 MA's), (Start: 49 @48479 has 17 MA's), (57, 48533), (59, 48548),

Gene: Marker_73 Start: 45397, Stop: 45555, Start Num: 45

Candidate Starts for Marker_73:

(Start: 45 @45397 has 128 MA's), (Start: 49 @45409 has 17 MA's), (57, 45463), (59, 45478), (66, 45541),

Gene: Martik_74 Start: 47948, Stop: 48094, Start Num: 45

Candidate Starts for Martik_74:

(Start: 45 @47948 has 128 MA's), (Start: 48 @47957 has 1 MA's), (Start: 49 @47960 has 17 MA's), (57, 48014), (59, 48029),

Gene: Mattes_74 Start: 47131, Stop: 47280, Start Num: 45

Candidate Starts for Mattes_74:

(Start: 45 @47131 has 128 MA's), (Start: 48 @47143 has 1 MA's), (Start: 49 @47146 has 17 MA's), (55, 47194), (59, 47215), (63, 47236),

Gene: Medindi_64 Start: 41005, Stop: 41160, Start Num: 45

Candidate Starts for Medindi_64:

(17, 40867), (Start: 45 @41005 has 128 MA's), (Start: 49 @41020 has 17 MA's), (55, 41068), (59, 41089), (63, 41110),

Gene: Melissauern88_65 Start: 41894, Stop: 42049, Start Num: 45

Candidate Starts for Melissauern88_65:

(17, 41756), (Start: 45 @41894 has 128 MA's), (Start: 49 @41909 has 17 MA's), (55, 41957), (59, 41978), (63, 41999),

Gene: MichelleMyBell_59 Start: 37278, Stop: 37388, Start Num: 52

Candidate Starts for MichelleMyBell_59:

(10, 36978), (13, 37053), (27, 37128), (32, 37161), (36, 37200), (37, 37203), (Start: 52 @37278 has 1 MA's), (65, 37371),

Gene: MilanaBonita_57 Start: 38486, Stop: 38626, Start Num: 49

Candidate Starts for MilanaBonita_57:

(17, 38333), (Start: 45 @38471 has 128 MA's), (Start: 49 @38486 has 17 MA's), (55, 38534), (59, 38555), (63, 38576),

Gene: MisterCuddles_69 Start: 45990, Stop: 46139, Start Num: 45

Candidate Starts for MisterCuddles_69:

(Start: 45 @45990 has 128 MA's), (Start: 49 @46002 has 17 MA's), (57, 46056), (59, 46071),

Gene: Mozy_79 Start: 45595, Stop: 45738, Start Num: 45

Candidate Starts for Mozy_79:

(17, 45457), (31, 45520), (Start: 45 @45595 has 128 MA's), (55, 45658), (59, 45679), (63, 45700),

Gene: Ms6_64 Start: 38259, Stop: 38414, Start Num: 45

Candidate Starts for Ms6_64:

(17, 38121), (Start: 45 @38259 has 128 MA's), (Start: 49 @38274 has 17 MA's), (55, 38322), (59, 38343), (63, 38364),

Gene: MulchExplorer_71 Start: 44775, Stop: 44924, Start Num: 45

Candidate Starts for MulchExplorer_71:

(17, 44637), (35, 44736), (Start: 45 @44775 has 128 MA's), (Start: 49 @44790 has 17 MA's), (55, 44838), (59, 44859), (63, 44880),

Gene: Mwanjiwa_76 Start: 46928, Stop: 47077, Start Num: 45

Candidate Starts for Mwanjiwa_76:

(Start: 45 @46928 has 128 MA's), (Start: 48 @46940 has 1 MA's), (Start: 49 @46943 has 17 MA's), (55, 46991), (57, 46997), (59, 47012),

Gene: Nichirin_73 Start: 46372, Stop: 46527, Start Num: 45

Candidate Starts for Nichirin_73:

(19, 46252), (Start: 45 @46372 has 128 MA's), (Start: 49 @46384 has 17 MA's), (57, 46438), (59, 46453),

Gene: Nimbo_61 Start: 41823, Stop: 41978, Start Num: 45

Candidate Starts for Nimbo_61:

(17, 41685), (Start: 45 @41823 has 128 MA's), (Start: 49 @41838 has 17 MA's), (55, 41886), (59, 41907), (63, 41928),

Gene: Ochi17_76 Start: 46605, Stop: 46760, Start Num: 45

Candidate Starts for Ochi17_76:

(17, 46473), (Start: 45 @46605 has 128 MA's), (Start: 49 @46617 has 17 MA's), (57, 46671), (59, 46686),

Gene: OfUltron_78 Start: 47154, Stop: 47309, Start Num: 45

Candidate Starts for OfUltron_78:

(17, 47022), (Start: 45 @47154 has 128 MA's), (Start: 49 @47166 has 17 MA's), (57, 47220), (59, 47235),

Gene: Ogotogo_76 Start: 44956, Stop: 45102, Start Num: 45

Candidate Starts for Ogotogo_76:

(22, 44830), (Start: 45 @44956 has 128 MA's), (Start: 48 @44968 has 1 MA's), (Start: 49 @44971 has 17 MA's), (55, 45019), (59, 45040), (63, 45061),

Gene: Okabe_67 Start: 41306, Stop: 41449, Start Num: 45

Candidate Starts for Okabe_67:

(Start: 45 @41306 has 128 MA's), (Start: 49 @41321 has 17 MA's), (55, 41369), (59, 41390), (63, 41411),

Gene: OldBen_65 Start: 43231, Stop: 43371, Start Num: 49

Candidate Starts for OldBen_65:

(17, 43078), (Start: 45 @43216 has 128 MA's), (Start: 49 @43231 has 17 MA's), (55, 43279), (59, 43300), (63, 43321),

Gene: OlympiaSaint_72 Start: 46073, Stop: 46222, Start Num: 45

Candidate Starts for OlympiaSaint_72:

(Start: 45 @46073 has 128 MA's), (Start: 48 @46085 has 1 MA's), (Start: 49 @46088 has 17 MA's), (55, 46136), (59, 46157), (63, 46178),

Gene: Ovechkin_67 Start: 43210, Stop: 43365, Start Num: 45

Candidate Starts for Ovechkin_67:

(17, 43072), (Start: 45 @43210 has 128 MA's), (Start: 49 @43225 has 17 MA's), (55, 43273), (59, 43294), (63, 43315),

Gene: PHappiness_68 Start: 44045, Stop: 44200, Start Num: 45

Candidate Starts for PHappiness_68:

(Start: 45 @44045 has 128 MA's), (Start: 49 @44060 has 17 MA's), (55, 44108), (59, 44129), (63, 44150),

Gene: PaintedDog_63 Start: 41375, Stop: 41494, Start Num: 51

Candidate Starts for PaintedDog_63:

(Start: 51 @41375 has 8 MA's),

Gene: PatoPoderoso_65 Start: 44016, Stop: 44159, Start Num: 45

Candidate Starts for PatoPoderoso_65:

(17, 43878), (Start: 45 @44016 has 128 MA's), (Start: 49 @44031 has 17 MA's), (55, 44079), (59, 44100), (63, 44121),

Gene: Phanphagia_63 Start: 42771, Stop: 42911, Start Num: 49

Candidate Starts for Phanphagia_63:

(17, 42618), (Start: 45 @42756 has 128 MA's), (Start: 49 @42771 has 17 MA's), (55, 42819), (59, 42840), (63, 42861),

Gene: Phasih_67 Start: 44273, Stop: 44413, Start Num: 45

Candidate Starts for Phasih_67:

(17, 44141), (35, 44240), (Start: 45 @44273 has 128 MA's), (Start: 49 @44285 has 17 MA's), (57, 44339), (59, 44354),

Gene: Philus_75 Start: 47772, Stop: 47921, Start Num: 45

Candidate Starts for Philus_75:

(Start: 45 @47772 has 128 MA's), (Start: 48 @47784 has 1 MA's), (Start: 49 @47787 has 17 MA's), (55, 47835), (59, 47856), (63, 47877),

Gene: Poenanya_70 Start: 44545, Stop: 44685, Start Num: 49

Candidate Starts for Poenanya_70:

(Start: 45 @44530 has 128 MA's), (Start: 49 @44545 has 17 MA's), (55, 44593), (59, 44614), (63, 44635),

Gene: Polka14_71 Start: 45261, Stop: 45401, Start Num: 49

Candidate Starts for Polka14_71:

(Start: 45 @45246 has 128 MA's), (Start: 49 @45261 has 17 MA's), (55, 45309), (59, 45330), (63, 45351),

Gene: QueenHazel_57 Start: 39547, Stop: 39696, Start Num: 45

Candidate Starts for QueenHazel_57:

(22, 39421), (Start: 45 @39547 has 128 MA's), (Start: 49 @39562 has 17 MA's), (55, 39610), (59, 39631), (63, 39652),

Gene: QuickMath_71 Start: 44999, Stop: 45148, Start Num: 45

Candidate Starts for QuickMath_71:

(17, 44861), (35, 44960), (Start: 45 @44999 has 128 MA's), (Start: 49 @45014 has 17 MA's), (55, 45062), (59, 45083), (63, 45104),

Gene: Quico_75 Start: 44316, Stop: 44471, Start Num: 45

Candidate Starts for Quico_75:

(17, 44178), (Start: 45 @44316 has 128 MA's), (Start: 49 @44331 has 17 MA's), (55, 44379), (59, 44400), (63, 44421),

Gene: Radiance_69 Start: 46419, Stop: 46571, Start Num: 45

Candidate Starts for Radiance_69:

(Start: 45 @46419 has 128 MA's), (Start: 48 @46431 has 1 MA's), (Start: 49 @46434 has 17 MA's), (57, 46488), (59, 46503), (64, 46560),

Gene: RedBird_68 Start: 43035, Stop: 43190, Start Num: 45

Candidate Starts for RedBird_68:

(Start: 45 @43035 has 128 MA's), (Start: 49 @43050 has 17 MA's), (55, 43098), (59, 43119), (63, 43140),

Gene: Renaud18_82 Start: 46991, Stop: 47140, Start Num: 44

Candidate Starts for Renaud18_82:

(17, 46859), (Start: 44 @46991 has 1 MA's), (55, 47051), (59, 47072), (63, 47093),

Gene: Rialto_73 Start: 45931, Stop: 46086, Start Num: 45

Candidate Starts for Rialto_73:

(17, 45793), (Start: 45 @45931 has 128 MA's), (Start: 49 @45946 has 17 MA's), (55, 45994), (59, 46015), (63, 46036),

Gene: RitaG_68 Start: 44390, Stop: 44545, Start Num: 45

Candidate Starts for RitaG_68:

(Start: 45 @44390 has 128 MA's), (Start: 49 @44405 has 17 MA's), (55, 44453), (59, 44474), (63, 44495),

Gene: Ruby_67 Start: 45991, Stop: 46140, Start Num: 45

Candidate Starts for Ruby_67:

(Start: 45 @45991 has 128 MA's), (Start: 49 @46003 has 17 MA's), (57, 46057), (59, 46072),

Gene: SG4_66 Start: 42817, Stop: 42957, Start Num: 49

Candidate Starts for SG4_66:

(Start: 45 @42805 has 128 MA's), (Start: 48 @42814 has 1 MA's), (Start: 49 @42817 has 17 MA's), (57, 42871), (59, 42886),

Gene: Saal_72 Start: 46825, Stop: 46974, Start Num: 45

Candidate Starts for Saal_72:

(Start: 45 @46825 has 128 MA's), (Start: 48 @46837 has 1 MA's), (Start: 49 @46840 has 17 MA's), (55, 46888), (59, 46909), (63, 46930),

Gene: Sabbb_72 Start: 43583, Stop: 43732, Start Num: 45

Candidate Starts for Sabbb_72:

(11, 43340), (18, 43454), (22, 43463), (Start: 45 @43583 has 128 MA's), (Start: 49 @43595 has 17 MA's), (57, 43649), (59, 43664), (64, 43721),

Gene: Sassafras_68 Start: 43353, Stop: 43508, Start Num: 45

Candidate Starts for Sassafras_68:

(Start: 45 @43353 has 128 MA's), (Start: 49 @43368 has 17 MA's), (55, 43416), (59, 43437), (63, 43458),

Gene: Sbash_70 Start: 46782, Stop: 46940, Start Num: 41

Candidate Starts for Sbash_70:

(Start: 41 @46782 has 1 MA's), (53, 46836), (62, 46884),

Gene: Scottish_66 Start: 42936, Stop: 43091, Start Num: 45

Candidate Starts for Scottish_66:

(17, 42798), (Start: 45 @42936 has 128 MA's), (Start: 49 @42951 has 17 MA's), (55, 42999), (59, 43020), (63, 43041),

Gene: Seabastian_78 Start: 47155, Stop: 47310, Start Num: 45

Candidate Starts for Seabastian_78:

(17, 47023), (Start: 45 @47155 has 128 MA's), (Start: 49 @47167 has 17 MA's), (57, 47221), (59, 47236),

Gene: Seagreen_66 Start: 42125, Stop: 42280, Start Num: 45

Candidate Starts for Seagreen_66:

(17, 41987), (Start: 45 @42125 has 128 MA's), (Start: 49 @42140 has 17 MA's), (55, 42188), (59, 42209), (63, 42230),

Gene: Sejanus_78 Start: 56346, Stop: 56510, Start Num: 38

Candidate Starts for Sejanus_78:

(26, 56262), (29, 56274), (34, 56319), (Start: 38 @56346 has 2 MA's),

Gene: Shauna1_65 Start: 42665, Stop: 42820, Start Num: 45

Candidate Starts for Shauna1_65:

(17, 42527), (Start: 45 @42665 has 128 MA's), (Start: 49 @42680 has 17 MA's), (55, 42728), (59, 42749), (63, 42770),

Gene: ShowerHandel_76 Start: 46591, Stop: 46740, Start Num: 45

Candidate Starts for ShowerHandel_76:

(17, 46459), (Start: 45 @46591 has 128 MA's), (Start: 48 @46600 has 1 MA's), (Start: 49 @46603 has 17 MA's), (55, 46651), (57, 46657), (59, 46672),

Gene: ShroomBoi_73 Start: 46320, Stop: 46463, Start Num: 45

Candidate Starts for ShroomBoi_73:

(Start: 45 @46320 has 128 MA's), (Start: 49 @46335 has 17 MA's), (55, 46383), (59, 46404), (63, 46425),

Gene: SiSi_67 Start: 44560, Stop: 44715, Start Num: 45

Candidate Starts for SiSi_67:

(25, 44446), (Start: 45 @44560 has 128 MA's), (Start: 49 @44575 has 17 MA's), (55, 44623), (59, 44644), (63, 44665),

Gene: SilverChicken_82 Start: 46256, Stop: 46399, Start Num: 45

Candidate Starts for SilverChicken_82:

(24, 46139), (Start: 45 @46256 has 128 MA's), (Start: 49 @46271 has 17 MA's), (55, 46319), (59, 46340), (63, 46361),

Gene: SimranZ1_71 Start: 45018, Stop: 45170, Start Num: 45

Candidate Starts for SimranZ1_71:

(Start: 45 @45018 has 128 MA's), (Start: 48 @45030 has 1 MA's), (Start: 49 @45033 has 17 MA's), (57, 45087), (59, 45102), (64, 45159),

Gene: Slim_70 Start: 44549, Stop: 44704, Start Num: 45

Candidate Starts for Slim_70:

(17, 44411), (Start: 45 @44549 has 128 MA's), (Start: 49 @44564 has 17 MA's), (55, 44612), (59, 44633), (63, 44654),

Gene: Sonah_60 Start: 38874, Stop: 38978, Start Num: 51

Candidate Starts for Sonah_60:

(Start: 51 @38874 has 8 MA's),

Gene: Soul22_76 Start: 44557, Stop: 44706, Start Num: 45

Candidate Starts for Soul22_76:

(17, 44419), (35, 44518), (Start: 45 @44557 has 128 MA's), (Start: 49 @44572 has 17 MA's), (55, 44620), (59, 44641), (63, 44662),

Gene: StAnnes_67 Start: 43879, Stop: 44034, Start Num: 45

Candidate Starts for StAnnes_67:

(17, 43741), (Start: 45 @43879 has 128 MA's), (Start: 49 @43894 has 17 MA's), (55, 43942), (59, 43963), (63, 43984),

Gene: Stap_67 Start: 43236, Stop: 43385, Start Num: 45

Candidate Starts for Stap_67:

(17, 43104), (33, 43170), (39, 43224), (Start: 45 @43236 has 128 MA's), (Start: 49 @43248 has 17 MA's), (57, 43302), (59, 43317),

Gene: Strokeseat_63 Start: 40434, Stop: 40589, Start Num: 45

Candidate Starts for Strokeseat_63:

(1, 39981), (2, 39999), (3, 40035), (4, 40041), (5, 40059), (9, 40155), (12, 40233), (22, 40308), (Start: 45 @40434 has 128 MA's), (Start: 49 @40449 has 17 MA's), (55, 40497), (59, 40518), (63, 40539),

Gene: SuperGrey_74 Start: 48498, Stop: 48629, Start Num: 49

Candidate Starts for SuperGrey_74:

(14, 48330), (15, 48342), (21, 48366), (28, 48390), (30, 48414), (47, 48486), (Start: 48 @48495 has 1 MA's), (Start: 49 @48498 has 17 MA's), (57, 48552), (59, 48567),

Gene: SwagPigglett_76 Start: 47881, Stop: 48015, Start Num: 49

Candidate Starts for SwagPigglett_76:

(Start: 45 @47866 has 128 MA's), (Start: 48 @47878 has 1 MA's), (Start: 49 @47881 has 17 MA's), (55, 47929), (59, 47950), (63, 47971),

Gene: Taj_78 Start: 46564, Stop: 46665, Start Num: 51

Candidate Starts for Taj_78:

(Start: 38 @46513 has 2 MA's), (43, 46528), (Start: 51 @46564 has 8 MA's),

Gene: Taj_73 Start: 45199, Stop: 45354, Start Num: 45

Candidate Starts for Taj_73:

(17, 45061), (Start: 45 @45199 has 128 MA's), (Start: 49 @45214 has 17 MA's), (55, 45262), (59, 45283), (63, 45304),

Gene: Tchotchke_68 Start: 45102, Stop: 45236, Start Num: 48

Candidate Starts for Tchotchke_68:

(Start: 48 @45102 has 1 MA's), (Start: 49 @45105 has 17 MA's), (57, 45159), (59, 45174),

Gene: ThetaBob_76 Start: 46222, Stop: 46368, Start Num: 45

Candidate Starts for ThetaBob_76:

(Start: 45 @46222 has 128 MA's), (Start: 49 @46234 has 17 MA's), (55, 46282), (59, 46303), (63, 46324),

Gene: Topiatin_77 Start: 46717, Stop: 46866, Start Num: 45

Candidate Starts for Topiatin_77:

(Start: 45 @46717 has 128 MA's), (Start: 48 @46726 has 1 MA's), (Start: 49 @46729 has 17 MA's), (57, 46783), (59, 46798),

Gene: Totinger_70 Start: 44700, Stop: 44843, Start Num: 45

Candidate Starts for Totinger_70:

(Start: 45 @44700 has 128 MA's), (Start: 48 @44709 has 1 MA's), (Start: 49 @44712 has 17 MA's), (57, 44766), (59, 44781),

Gene: Tweety_73 Start: 47076, Stop: 47234, Start Num: 45

Candidate Starts for Tweety_73:

(Start: 45 @47076 has 128 MA's), (Start: 48 @47085 has 1 MA's), (Start: 49 @47088 has 17 MA's), (57, 47142), (59, 47157),

Gene: UncleRicky_70 Start: 44490, Stop: 44636, Start Num: 45

Candidate Starts for UncleRicky_70:

(Start: 45 @44490 has 128 MA's), (Start: 48 @44499 has 1 MA's), (Start: 49 @44502 has 17 MA's), (57, 44556), (59, 44571),

Gene: Veteran_65 Start: 44909, Stop: 45058, Start Num: 45

Candidate Starts for Veteran_65:

(24, 44792), (35, 44870), (Start: 45 @44909 has 128 MA's), (Start: 49 @44924 has 17 MA's), (55, 44972), (59, 44993), (63, 45014),

Gene: Violac_71 Start: 46315, Stop: 46458, Start Num: 45

Candidate Starts for Violac_71:

(Start: 45 @46315 has 128 MA's), (Start: 48 @46327 has 1 MA's), (Start: 49 @46330 has 17 MA's), (55, 46378), (57, 46384), (59, 46399),

Gene: Vivum_74 Start: 48329, Stop: 48472, Start Num: 45

Candidate Starts for Vivum_74:

(Start: 45 @48329 has 128 MA's), (Start: 48 @48338 has 1 MA's), (Start: 49 @48341 has 17 MA's), (57, 48395), (59, 48410),

Gene: Wachhund_71 Start: 44201, Stop: 44362, Start Num: 45

Candidate Starts for Wachhund_71:

(Start: 45 @44201 has 128 MA's), (Start: 48 @44213 has 1 MA's), (Start: 49 @44216 has 17 MA's), (57, 44270), (59, 44285),

Gene: Wee_73 Start: 45275, Stop: 45430, Start Num: 45

Candidate Starts for Wee_73:

(17, 45137), (Start: 45 @45275 has 128 MA's), (Start: 49 @45290 has 17 MA's), (55, 45338), (59, 45359), (63, 45380),

Gene: Whatsapiecost_67 Start: 41846, Stop: 41989, Start Num: 45

Candidate Starts for Whatsapiecost_67:

(17, 41708), (Start: 45 @41846 has 128 MA's), (Start: 49 @41861 has 17 MA's), (55, 41909), (59, 41930), (63, 41951),

Gene: Whouxphf_69 Start: 45627, Stop: 45773, Start Num: 45

Candidate Starts for Whouxphf_69:

(39, 45615), (Start: 45 @45627 has 128 MA's), (Start: 49 @45639 has 17 MA's), (57, 45693), (59, 45708),

Gene: WillSterrel_73 Start: 46501, Stop: 46650, Start Num: 45

Candidate Starts for WillSterrel_73:

(Start: 45 @46501 has 128 MA's), (Start: 48 @46513 has 1 MA's), (Start: 49 @46516 has 17 MA's), (55, 46564), (59, 46585), (60, 46591), (63, 46606),

Gene: Willsammy_61 Start: 41085, Stop: 41189, Start Num: 51

Candidate Starts for Willsammy_61:

(35, 41016), (42, 41046), (50, 41082), (Start: 51 @41085 has 8 MA's),

Gene: XFactor_68 Start: 44921, Stop: 45067, Start Num: 45

Candidate Starts for XFactor_68:

(Start: 45 @44921 has 128 MA's), (Start: 49 @44933 has 17 MA's), (55, 44981), (57, 44987), (59, 45002),

Gene: Xula_56 Start: 39168, Stop: 39317, Start Num: 45

Candidate Starts for Xula_56:

(22, 39042), (Start: 45 @39168 has 128 MA's), (Start: 49 @39183 has 17 MA's), (55, 39231), (59, 39252), (63, 39273),

Gene: Yoshi_86 Start: 46688, Stop: 46834, Start Num: 45

Candidate Starts for Yoshi_86:

(Start: 45 @46688 has 128 MA's), (Start: 49 @46700 has 17 MA's), (55, 46748), (57, 46754), (59, 46769),

Gene: Zapner_81 Start: 44699, Stop: 44848, Start Num: 45

Candidate Starts for Zapner_81:

(17, 44561), (35, 44660), (Start: 45 @44699 has 128 MA's), (Start: 49 @44714 has 17 MA's), (55, 44762), (59, 44783), (63, 44804),

Gene: Zerg_71 Start: 45778, Stop: 45912, Start Num: 49

Candidate Starts for Zerg_71:

(23, 45649), (Start: 45 @45766 has 128 MA's), (Start: 49 @45778 has 17 MA's), (57, 45832), (59, 45847),

Gene: Zizzle_75 Start: 47154, Stop: 47303, Start Num: 45

Candidate Starts for Zizzle_75:

(Start: 45 @47154 has 128 MA's), (Start: 48 @47166 has 1 MA's), (Start: 49 @47169 has 17 MA's), (55, 47217), (59, 47238), (63, 47259),