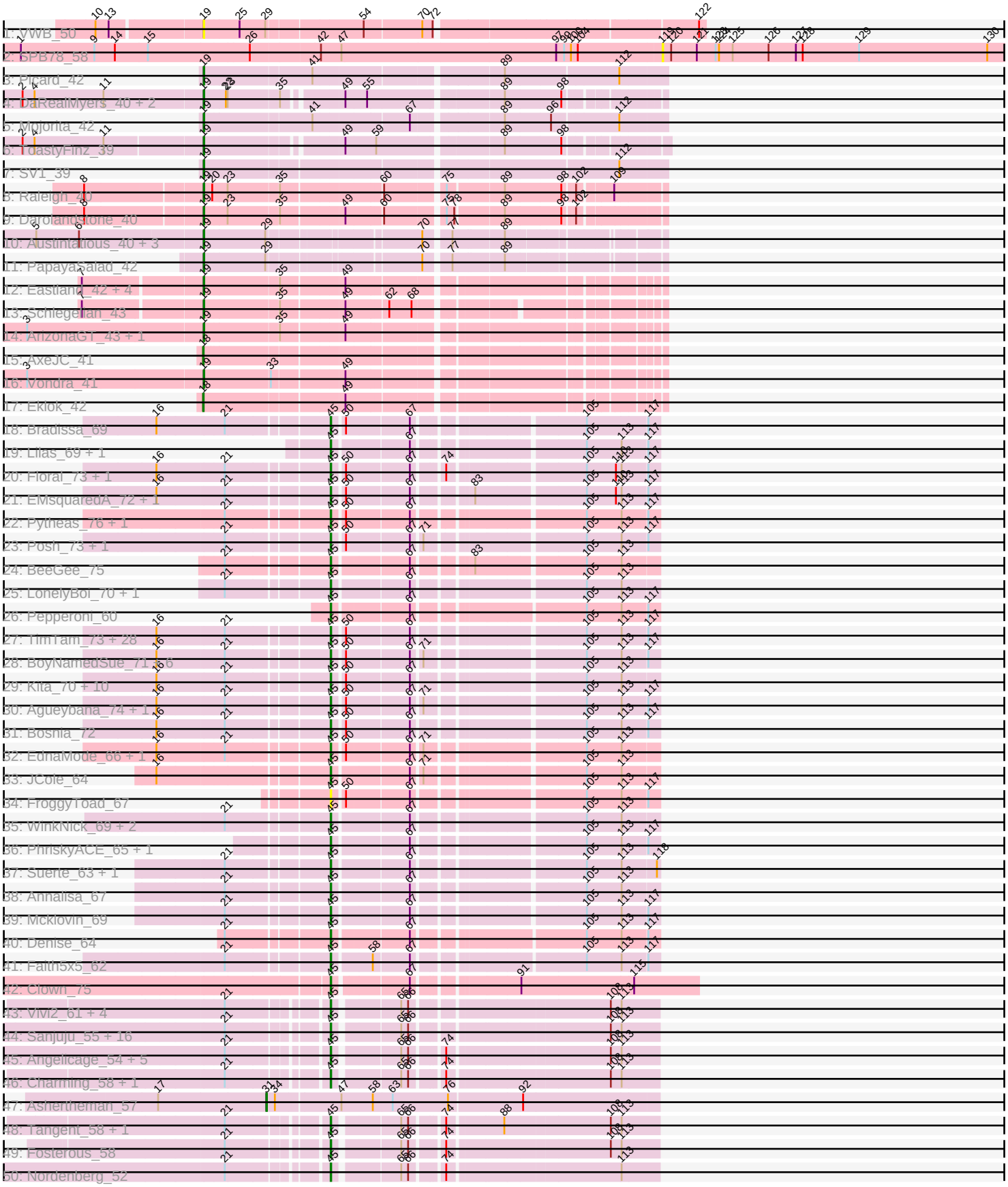
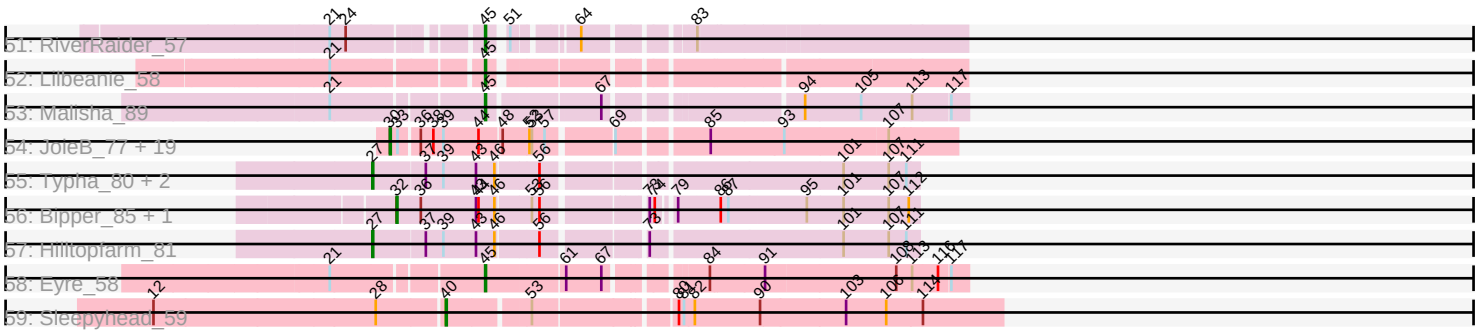
Pham 345425



Pham 345425


51: RiverRaider_57
52: Lilbeanie_58
53: Malisha_89
54: JoieB_77 + 19
55: Typha_80 + 2
56: Bipper_85 + 1
57: Hilltopfarm_81
58: Eyre_58
59: Sleepyhead_59

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 345425 Report

This analysis was run 11/14/26 on database version 672.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 345425 has 174 members, 10 are drafts.

Phages represented in each track:
- Track 1 : VWB_50
- Track 2 : SPB78_58
- Track 3 : Picard_42
- Track 4 : DaRealMyers_40, Tubberson_40, SoJo_40
- Track 5 : Mojorita_42
- Track 6 : ToastyFinz_39
- Track 7 : SV1_39
- Track 8 : Raleigh_40
- Track 9 : Darolandstone_40
- Track 10 : Austintatious_40, Lishka_40, Bioscum_43, Ididsumtinwong_44
- Track 11 : PapayaSalad_42
- Track 12 : Eastland_42, Piccadilly_42, Ignacio_42, HFrancette_43, FrumpyGal_43
- Track 13 : Schlegelian_43
- Track 14 : ArizonaGT_43, Cumberbatch_43
- Track 15 : AxeJC_41
- Track 16 : Vondra_41
- Track 17 : Eklok_42
- Track 18 : Bradissa_69
- Track 19 : Lilas_69, EnalisNailo_68
- Track 20 : Floral_73, Pollux_75
- Track 21 : EMsquaredA_72, Marteena_71
- Track 22 : Pytheas_76, Jablanski_75
- Track 23 : Posh_73, Wrigley_75
- Track 24 : BeeGee_75
- Track 25 : LonelyBoi_70, Confidence_71
- Track 26 : Pepperoni_60
- Track 27 : TimTam_73, Herod_73, Haley23_67, Attis_66, Sidious_70, BatStarr_72, Sahara_66, Cynthia_67, TuertoX_67, Cashline_70, PantheRoc_75, Bjanes7_64, Sproutie_67, Whiteclaw_67, Ebert_70, Clap_67, Eviarto_73, Gizermo_67, Hugley_71, Jalleen_71, LordFarquaad_69, Mocha12_67, Nymphadora_73, SoilAssassin_66, GemG_67, Yinzer_67, Lamberg_63, Savage_67, Angelique_67
- Track 28 : BoyNamedSue_71, BaxterFox_75, Zirinka_67, AlumE_71, Bialota_67, Yeet412_65, Nettuno_64

• Track 29 : Kita_70, Trumpet_69, Antonio_68, Dillpickles_74, Eudoria_69, Polly_66, Suscepit_69, Manasvini_71, Tayonia_69, Neobush_71, Zameen_69
• Track 30 : Agueybana_74, Matteo_61
• Track 31 : Bosnia_72
• Track 32 : EdnaMode_66, Pickett_64
• Track 33 : JCole_64
• Track 34 : FroggyToad_67
• Track 35 : WinkNick_69, Dolores_69, Sekhmet_68
• Track 36 : PhriskyACE_65, Powerball_67
• Track 37 : Suerte_63, MakCheese_78
• Track 38 : Annalisa_67
• Track 39 : Mcklovin_69
• Track 40 : Denise_64
• Track 41 : Faith5x5_62
• Track 42 : Clown_75
• Track 43 : Vivi2_61, Sitar_57, Brawn1_53, Jabberwocky_55, Lennon_57
• Track 44 : Sanjuju_55, Shivanishola_56, MoontowerMania_56, Ailee_53, Galadriel_57, McKinley_59, Paries_60, Fitzgerald_55, Geodirt_55, Keitabear_56, Kewpiedoll_57, Sedona_56, Barsten_57, McCrothy_57, BobBob_55, ChadMasterC_57, Love_61
• Track 45 : Angelicage_54, Affeca_54, Thing3_55, Stultus_54, FuegoCuervo_60, Kamashten_55
• Track 46 : Charming_58, Brandonk123_59
• Track 47 : Ashertheman_57
• Track 48 : Tangent_58, Rofo_57
• Track 49 : Fosterous_58
• Track 50 : Nordenberg_52
• Track 51 : RiverRaider_57
• Track 52 : Lilbeanie_58
• Track 53 : Malisha_89
• Track 54 : JoieB_77, Marvin_72, VasuNzinga_75, MosMoris_73, Caprice_75, FeliMaine_78, Gattaca_74, Corazon_73, Blackbeetle_77, RedRaider77_76, Clarkson_77, GoongGoong_76, Huphlepuff_78, Raela_77, Tesla_73, Poise_77, LittleLaf_76, Lilbit_74, Pringar_74, Beelzebub_80
• Track 55 : Typha_80, Faiyaz_82, AuntGwenStacy_81
• Track 56 : Bipper_85, Cracklewink_85
• Track 57 : Hilltopfarm_81
• Track 58 : Eyre_58
• Track 59 : Sleepyhead_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 111 of the 164 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Affeca_54, Agueybana_74, Ailee_53, AlumE_71, Angelicage_54, Angelique_67, Annalisa_67, Antonio_68, Attis_66, Barsten_57, BatStarr_72, BaxterFox_75, BeeGee_75, Bialota_67, Bjanes7_64, BobBob_55, Bosnia_72, BoyNamedSue_71, Bradissa_69, Brandonk123_59, Brawn1_53, Cashline_70, ChadMasterC_57,

Charming_58, Clap_67, Clown_75, Confidence_71, Cynthia_67, Denise_64, Dillpickles_74, Dolores_69, EMsquaredA_72, Ebert_70, EdnaMode_66, EnalisNailo_68, Eudoria_69, Eviarto_73, Eyre_58, Faith5x5_62, Fitzgerald_55, Floral_73, Fosterous_58, FroggyToad_67, FuegoCuervo_60, Galadriel_57, GemG_67, Geodirt_55, Gizermo_67, Haley23_67, Herod_73, Hugley_71, JCole_64, Jabberwocky_55, Jablanski_75, Jalleen_71, Kamashten_55, Keitabear_56, Kewpiedoll_57, Kita_70, Lamberg_63, Lennon_57, Lilas_69, Lilbeanie_58, LonelyBoi_70, LordFarquaad_69, Love_61, MakCheese_78, Malisha_89, Manasvini_71, Marteena_71, Matteo_61, McCrothy_57, McKinley_59, Mcklovin_69, Mocha12_67, MoontowerMania_56, Neobush_71, Nettuno_64, Nordenberg_52, Nymphadora_73, PantheRoc_75, Paries_60, Pepperoni_60, PhriskyACE_65, Pickett_64, Pollux_75, Polly_66, Posh_73, Powerball_67, Pytheas_76, RiverRaider_57, Rofo_57, Sahara_66, Sanjuju_55, Savage_67, Sedona_56, Sekhmet_68, Shivanishola_56, Sidious_70, Sitar_57, SoilAssassin_66, Sproutie_67, Stultus_54, Suerte_63, Suscepit_69, Tangent_58, Tayonia_69, Thing3_55, TimTam_73, Trumpet_69, TuertoX_67, Vivi2_61, Whiteclaw_67, WinkNick_69, Wrigley_75, Yeet412_65, Yinzer_67, Zameen_69, Zirinka_67,

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

Genes that do not have the "Most Annotated" start:
• ArizonaGT_43, Ashertheman_57, AuntGwenStacy_81, Austintatious_40, AxeJC_41, Beelzebub_80, Bioscum_43, Bipper_85, Blackbeetle_77, Caprice_75, Clarkson_77, Corazon_73, Cracklewink_85, Cumberbatch_43, DaRealMyers_40, Darolandstone_40, Eastland_42, Eklok_42, Faiyaz_82, FeliMaine_78, FrumpyGal_43, Gattaca_74, GoongGoong_76, HFrancette_43, Hilltopfarm_81, Huphlepuff_78, Ididsumtinwong_44, Ignacio_42, JoieB_77, Lilbit_74, Lishka_40, LittleLaf_76, Marvin_72, Mojorita_42, MosMoris_73, PapayaSalad_42, Picard_42, Piccadilly_42, Poise_77, Pringar_74, Raela_77, Raleigh_40, RedRaider77_76, SPB78_58, SV1_39, Schlegelian_43, Sleepyhead_59, SoJo_40, Tesla_73, ToastyFinz_39, Tubberson_40, Typha_80, VWB_50, VasuNzinga_75, Vondra_41,

Summary by start number:

Start 18:
• Found in 2 of 174 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AxeJC_41 (BP), Eklok_42 (BP),

Start 19:
• Found in 24 of 174 (13.8%) of genes in pham
• Manual Annotations of this start: 23 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArizonaGT_43 (BP), Austintatious_40 (BC3), Bioscum_43 (BC3), Cumberbatch_43 (BP), DaRealMyers_40 (BC1), Darolandstone_40 (BC2), Eastland_42 (BP), FrumpyGal_43 (BP), HFrancette_43 (BP), Ididsumtinwong_44 (BC3), Ignacio_42 (BP), Lishka_40 (BC3), Mojorita_42 (BC1), PapayaSalad_42 (BC3), Picard_42 (BC1), Piccadilly_42 (BP), Raleigh_40 (BC2), SV1_39 (BC1), Schlegelian_43 (BP), SoJo_40 (BC1), ToastyFinz_39 (BC1), Tubberson_40 (BC1), VWB_50 (BA), Vondra_41 (BP),

Start 27:
• Found in 4 of 174 (2.3%) of genes in pham
• Manual Annotations of this start: 4 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_81 (Y), Faiyaz_82 (Y), Hilltopfarm_81 (Y), Typha_80 (Y),

Start 30:
• Found in 20 of 174 (11.5%) of genes in pham
• Manual Annotations of this start: 20 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beelzebub_80 (S), Blackbeetle_77 (S), Caprice_75 (S), Clarkson_77 (S), Corazon_73 (S), FeliMaine_78 (S), Gattaca_74 (S), GoongGoong_76 (S), Huphlepuff_78 (S), JoieB_77 (S), Lilbit_74 (S), LittleLaf_76 (S), Marvin_72 (S), MosMoris_73 (S), Poise_77 (S), Pringar_74 (S), Raela_77 (S), RedRaider77_76 (S), Tesla_73 (S), VasuNzinga_75 (S),

Start 31:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ashertheman_57 (DE1),

Start 32:
• Found in 2 of 174 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bipper_85 (Y), Cracklewink_85 (Y),

Start 40:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sleepyhead_59 (singleton),

Start 45:
• Found in 119 of 174 (68.4%) of genes in pham
• Manual Annotations of this start: 111 of 164
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Affeca_54 (DE1), Agueybana_74 (CZ1), Ailee_53 (DE1), AlumE_71 (CZ1), Angelicage_54 (DE1), Angelique_67 (CY1), Annalisa_67 (CZ4), Antonio_68 (CZ1), Attis_66 (CZ2), Barsten_57 (DE1), BatStarr_72 (CZ1), BaxterFox_75 (CZ3), BeeGee_75 (CY5), Bialota_67 (CZ1), Bjanes7_64 (CZ2), BobBob_55 (DE1), Bosnia_72 (CZ1), BoyNamedSue_71 (CZ1), Bradissa_69 (CY1), Brandonk123_59 (DE1), Brawn1_53 (DE1), Cashline_70 (CY6), ChadMasterC_57 (DE1), Charming_58 (DE1), Clap_67 (CZ2), Clown_75 (DC2), Confidence_71 (CY1), Cynthia_67 (CZ2), Denise_64 (CZ5), Dillpickles_74 (CZ1), Dolores_69 (CZ4), EMsquaredA_72 (CY1), Ebert_70 (CZ2), EdnaMode_66 (CZ2), EnalisNailo_68 (CY1), Eudoria_69 (CZ1), Eviarto_73 (CZ1), Eyre_58 (singleton), Faith5x5_62 (CZ6), Fitzgerald_55 (DE1), Floral_73 (CY1), Fosterous_58 (DE1), FroggyToad_67 (CZ2), FuegoCuervo_60 (DE1), Galadriel_57 (DE1), GemG_67 (CZ2), Geodirt_55 (DE1), Gizermo_67 (CZ2), Haley23_67 (CZ2), Herod_73 (CZ1), Hugley_71 (CZ1), JCole_64 (CZ2), Jabberwocky_55 (DE1), Jablanski_75 (CY3),

Jalleen_71 (CZ2), Kamashten_55 (DE1), Keitabear_56 (DE1), Kewpiedoll_57 (DE1), Kita_70 (CZ1), Lamberg_63 (CZ2), Lennon_57 (DE1), Lilas_69 (CY1), Lilbeanie_58 (DE5), LonelyBoi_70 (CY7), LordFarquaad_69 (CZ2), Love_61 (DE1), MakCheese_78 (DW), Malisha_89 (DN), Manasvini_71 (CZ1), Marteena_71 (CY1), Matteo_61 (CZ2), McCrothy_57 (DE1), McKinley_59 (DE1), Mcklovin_69 (CZ4), Mocha12_67 (CZ2), MoontowerMania_56 (DE1), Neobush_71 (CZ1), Nettuno_64 (CZ2), Nordenberg_52 (DE1), Nymphadora_73 (CZ1), PantheRoc_75 (CZ3), Paries_60 (DE1), Pepperoni_60 (CZ), PhriskyACE_65 (CZ4), Pickett_64 (CZ2), Pollux_75 (CY1), Polly_66 (CZ1), Posh_73 (CY4), Powerball_67 (CZ4), Pytheas_76 (CY3), RiverRaider_57 (DE1), Rofo_57 (DE1), Sahara_66 (CZ2), Sanjuju_55 (DE1), Savage_67 (CZ2), Sedona_56 (DE1), Sekhmet_68 (CZ4), Shivanishola_56 (DE1), Sidious_70 (CZ7), Sitar_57 (DE1), SoilAssassin_66 (CZ2), Sproutie_67 (CZ2), Stultus_54 (DE1), Suerte_63 (CZ4), Suscepit_69 (CZ1), Tangent_58 (DE1), Tayonia_69 (CZ1), Thing3_55 (DE1), TimTam_73 (CZ1), Trumpet_69 (CZ1), TuertoX_67 (CZ2), Vivi2_61 (DE1), Whiteclaw_67 (CZ2), WinkNick_69 (CZ4), Wrigley_75 (CY4), Yeet412_65 (CZ2), Yinzer_67 (CZ2), Zameen_69 (CZ1), Zirinka_67 (CZ1),

Start 119:
• Found in 1 of 174 (0.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SPB78_58 (BA),

Summary by clusters:

There are 27 clusters represented in this pham: DN, singleton, BA, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, CZ5, BP, DW, CY3, CY1, CY7, CY6, CY5, CY4, CZ, S, Y, DC2, DE1, DE5, BC1, BC2, BC3,

Info for manual annotations of cluster BC1:
•Start number 19 was manually annotated 7 times for cluster BC1.

Info for manual annotations of cluster BC2:
•Start number 19 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:
•Start number 19 was manually annotated 5 times for cluster BC3.

Info for manual annotations of cluster BP:
•Start number 18 was manually annotated 2 times for cluster BP.
•Start number 19 was manually annotated 9 times for cluster BP.

Info for manual annotations of cluster CY1:
•Start number 45 was manually annotated 9 times for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 45 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 45 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:
•Start number 45 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:
•Start number 45 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 45 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:
•Start number 45 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 45 was manually annotated 21 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 45 was manually annotated 23 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 45 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 45 was manually annotated 8 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 45 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 45 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 45 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DC2:
•Start number 45 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 31 was manually annotated 1 time for cluster DE1.
•Start number 45 was manually annotated 33 times for cluster DE1.

Info for manual annotations of cluster DE5:
•Start number 45 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DN:
•Start number 45 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster S:
•Start number 30 was manually annotated 20 times for cluster S.

Info for manual annotations of cluster Y:
•Start number 27 was manually annotated 4 times for cluster Y.
•Start number 32 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: Affeca_54 Start: 45858, Stop: 46361, Start Num: 45
Candidate Starts for Affeca_54:
(21, 45708), (Start: 45 @45858 has 111 MA's), (65, 45957), (66, 45969), (74, 46014), (108, 46278), (113, 46296),

Gene: Agueybana_74 Start: 48379, Stop: 48873, Start Num: 45
Candidate Starts for Agueybana_74:
(16, 48106), (21, 48217), (Start: 45 @48379 has 111 MA's), (50, 48397), (67, 48496), (71, 48511), (105, 48751), (113, 48811), (117, 48853),

Gene: Ailee_53 Start: 45466, Stop: 45969, Start Num: 45
Candidate Starts for Ailee_53:
(21, 45316), (Start: 45 @45466 has 111 MA's), (65, 45565), (66, 45577), (108, 45886), (113, 45904),

Gene: AlumE_71 Start: 48304, Stop: 48798, Start Num: 45
Candidate Starts for AlumE_71:
(16, 48031), (21, 48142), (Start: 45 @48304 has 111 MA's), (50, 48322), (67, 48421), (71, 48436), (105, 48676), (113, 48736), (117, 48778),

Gene: Angelicage_54 Start: 46273, Stop: 46776, Start Num: 45
Candidate Starts for Angelicage_54:
(21, 46123), (Start: 45 @46273 has 111 MA's), (65, 46372), (66, 46384), (74, 46429), (108, 46693), (113, 46711),

Gene: Angelique_67 Start: 46696, Stop: 47190, Start Num: 45
Candidate Starts for Angelique_67:
(16, 46423), (21, 46534), (Start: 45 @46696 has 111 MA's), (50, 46714), (67, 46813), (105, 47068), (113, 47128), (117, 47170),

Gene: Annalisa_67 Start: 43490, Stop: 43984, Start Num: 45
Candidate Starts for Annalisa_67:
(21, 43328), (Start: 45 @43490 has 111 MA's), (67, 43607), (105, 43862), (113, 43922),

Gene: Antonio_68 Start: 45821, Stop: 46315, Start Num: 45
Candidate Starts for Antonio_68:
(16, 45548), (21, 45659), (Start: 45 @45821 has 111 MA's), (50, 45839), (67, 45938), (105, 46193), (113, 46253),

Gene: ArizonaGT_43 Start: 29287, Stop: 29967, Start Num: 19
Candidate Starts for ArizonaGT_43:
(3, 28987), (Start: 19 @29287 has 23 MA's), (35, 29410), (49, 29512),

Gene: Ashertheman_57 Start: 45729, Stop: 46388, Start Num: 31
Candidate Starts for Ashertheman_57:
(17, 45543), (Start: 31 @45729 has 1 MA's), (34, 45744), (47, 45852), (58, 45903), (63, 45936), (76, 46032), (92, 46155),

Gene: Attis_66 Start: 44538, Stop: 45032, Start Num: 45

Candidate Starts for Attis_66:
(16, 44265), (21, 44376), (Start: 45 @44538 has 111 MA's), (50, 44556), (67, 44655), (105, 44910), (113, 44970), (117, 45012),

Gene: AuntGwenStacy_81 Start: 53643, Stop: 54239, Start Num: 27
Candidate Starts for AuntGwenStacy_81:
(Start: 27 @53643 has 4 MA's), (37, 53703), (39, 53724), (43, 53763), (46, 53784), (56, 53829), (101, 54150), (107, 54204), (111, 54225),

Gene: Austintatious_40 Start: 26725, Stop: 27405, Start Num: 19
Candidate Starts for Austintatious_40:
(5, 26443), (6, 26518), (Start: 19 @26725 has 23 MA's), (29, 26830), (70, 27061), (77, 27097), (89, 27178),

Gene: AxeJC_41 Start: 28989, Stop: 29669, Start Num: 18
Candidate Starts for AxeJC_41:
(Start: 18 @28989 has 2 MA's),

Gene: Barsten_57 Start: 46229, Stop: 46732, Start Num: 45
Candidate Starts for Barsten_57:
(21, 46079), (Start: 45 @46229 has 111 MA's), (65, 46328), (66, 46340), (108, 46649), (113, 46667),

Gene: BatStarr_72 Start: 48783, Stop: 49277, Start Num: 45
Candidate Starts for BatStarr_72:
(16, 48510), (21, 48621), (Start: 45 @48783 has 111 MA's), (50, 48801), (67, 48900), (105, 49155), (113, 49215), (117, 49257),

Gene: BaxterFox_75 Start: 49367, Stop: 49861, Start Num: 45
Candidate Starts for BaxterFox_75:
(16, 49094), (21, 49205), (Start: 45 @49367 has 111 MA's), (50, 49385), (67, 49484), (71, 49499), (105, 49739), (113, 49799), (117, 49841),

Gene: BeeGee_75 Start: 47888, Stop: 48382, Start Num: 45
Candidate Starts for BeeGee_75:
(21, 47726), (Start: 45 @47888 has 111 MA's), (67, 48005), (83, 48083), (105, 48260), (113, 48320),

Gene: Beelzebub_80 Start: 43008, Stop: 43628, Start Num: 30
Candidate Starts for Beelzebub_80:
(Start: 30 @43008 has 20 MA's), (33, 43017), (36, 43038), (38, 43053), (39, 43065), (44, 43107), (48, 43131), (52, 43158), (53, 43161), (57, 43176), (69, 43245), (85, 43341), (93, 43428), (107, 43548),

Gene: Bialota_67 Start: 47495, Stop: 47989, Start Num: 45
Candidate Starts for Bialota_67:
(16, 47222), (21, 47333), (Start: 45 @47495 has 111 MA's), (50, 47513), (67, 47612), (71, 47627), (105, 47867), (113, 47927), (117, 47969),

Gene: Bioscum_43 Start: 29021, Stop: 29701, Start Num: 19
Candidate Starts for Bioscum_43:
(5, 28739), (6, 28814), (Start: 19 @29021 has 23 MA's), (29, 29126), (70, 29357), (77, 29393), (89, 29474),

Gene: Bipper_85 Start: 55593, Stop: 56150, Start Num: 32
Candidate Starts for Bipper_85:

(Start: 32 @55593 has 2 MA's), (36, 55620), (43, 55686), (44, 55689), (46, 55707), (53, 55743), (56, 55752), (73, 55854), (74, 55860), (79, 55872), (86, 55920), (87, 55929), (95, 56019), (101, 56061), (107, 56115), (112, 56139),

Gene: Bjanes7_64 Start: 42163, Stop: 42657, Start Num: 45
Candidate Starts for Bjanes7_64:
(16, 41890), (21, 42001), (Start: 45 @42163 has 111 MA's), (50, 42181), (67, 42280), (105, 42535), (113, 42595), (117, 42637),

Gene: Blackbeetle_77 Start: 42369, Stop: 42989, Start Num: 30
Candidate Starts for Blackbeetle_77:
(Start: 30 @42369 has 20 MA's), (33, 42378), (36, 42399), (38, 42414), (39, 42426), (44, 42468), (48, 42492), (52, 42519), (53, 42522), (57, 42537), (69, 42606), (85, 42702), (93, 42789), (107, 42909),

Gene: BobBob_55 Start: 45456, Stop: 45959, Start Num: 45
Candidate Starts for BobBob_55:
(21, 45306), (Start: 45 @45456 has 111 MA's), (65, 45555), (66, 45567), (108, 45876), (113, 45894),

Gene: Bosnia_72 Start: 50148, Stop: 50642, Start Num: 45
Candidate Starts for Bosnia_72:
(16, 49875), (21, 49986), (Start: 45 @50148 has 111 MA's), (50, 50166), (67, 50265), (105, 50520), (113, 50580), (117, 50622),

Gene: BoyNamedSue_71 Start: 48304, Stop: 48798, Start Num: 45
Candidate Starts for BoyNamedSue_71:
(16, 48031), (21, 48142), (Start: 45 @48304 has 111 MA's), (50, 48322), (67, 48421), (71, 48436), (105, 48676), (113, 48736), (117, 48778),

Gene: Bradissa_69 Start: 48225, Stop: 48719, Start Num: 45
Candidate Starts for Bradissa_69:
(16, 47952), (21, 48063), (Start: 45 @48225 has 111 MA's), (50, 48243), (67, 48342), (105, 48597), (117, 48699),

Gene: Brandonk123_59 Start: 46650, Stop: 47153, Start Num: 45
Candidate Starts for Brandonk123_59:
(21, 46500), (Start: 45 @46650 has 111 MA's), (65, 46749), (66, 46761), (74, 46806), (108, 47070), (113, 47088),

Gene: Brawn1_53 Start: 45543, Stop: 46049, Start Num: 45
Candidate Starts for Brawn1_53:
(21, 45393), (Start: 45 @45543 has 111 MA's), (65, 45642), (66, 45654), (108, 45963), (113, 45981),

Gene: Caprice_75 Start: 42307, Stop: 42927, Start Num: 30
Candidate Starts for Caprice_75:
(Start: 30 @42307 has 20 MA's), (33, 42316), (36, 42337), (38, 42352), (39, 42364), (44, 42406), (48, 42430), (52, 42457), (53, 42460), (57, 42475), (69, 42544), (85, 42640), (93, 42727), (107, 42847),

Gene: Cashline_70 Start: 48920, Stop: 49414, Start Num: 45
Candidate Starts for Cashline_70:
(16, 48647), (21, 48758), (Start: 45 @48920 has 111 MA's), (50, 48938), (67, 49037), (105, 49292), (113, 49352), (117, 49394),

Gene: ChadMasterC_57 Start: 47628, Stop: 48131, Start Num: 45

Candidate Starts for ChadMasterC_57:
(21, 47478), (Start: 45 @47628 has 111 MA's), (65, 47727), (66, 47739), (108, 48048), (113, 48066),

Gene: Charming_58 Start: 46144, Stop: 46647, Start Num: 45
Candidate Starts for Charming_58:
(21, 45994), (Start: 45 @46144 has 111 MA's), (65, 46243), (66, 46255), (74, 46300), (108, 46564), (113, 46582),

Gene: Clap_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Clap_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Clarkson_77 Start: 42688, Stop: 43308, Start Num: 30
Candidate Starts for Clarkson_77:
(Start: 30 @42688 has 20 MA's), (33, 42697), (36, 42718), (38, 42733), (39, 42745), (44, 42787), (48, 42811), (52, 42838), (53, 42841), (57, 42856), (69, 42925), (85, 43021), (93, 43108), (107, 43228),

Gene: Clown_75 Start: 50685, Stop: 51260, Start Num: 45
Candidate Starts for Clown_75:
(Start: 45 @50685 has 111 MA's), (67, 50799), (91, 50952), (115, 51147),

Gene: Confidence_71 Start: 46288, Stop: 46782, Start Num: 45
Candidate Starts for Confidence_71:
(21, 46126), (Start: 45 @46288 has 111 MA's), (67, 46405), (105, 46660), (113, 46720),

Gene: Corazon_73 Start: 42882, Stop: 43502, Start Num: 30
Candidate Starts for Corazon_73:
(Start: 30 @42882 has 20 MA's), (33, 42891), (36, 42912), (38, 42927), (39, 42939), (44, 42981), (48, 43005), (52, 43032), (53, 43035), (57, 43050), (69, 43119), (85, 43215), (93, 43302), (107, 43422),

Gene: Cracklewink_85 Start: 54633, Stop: 55190, Start Num: 32
Candidate Starts for Cracklewink_85:
(Start: 32 @54633 has 2 MA's), (36, 54660), (43, 54726), (44, 54729), (46, 54747), (53, 54783), (56, 54792), (73, 54894), (74, 54900), (79, 54912), (86, 54960), (87, 54969), (95, 55059), (101, 55101), (107, 55155), (112, 55179),

Gene: Cumberbatch_43 Start: 29287, Stop: 29967, Start Num: 19
Candidate Starts for Cumberbatch_43:
(3, 28987), (Start: 19 @29287 has 23 MA's), (35, 29410), (49, 29512),

Gene: Cynthia_67 Start: 42340, Stop: 42834, Start Num: 45
Candidate Starts for Cynthia_67:
(16, 42067), (21, 42178), (Start: 45 @42340 has 111 MA's), (50, 42358), (67, 42457), (105, 42712), (113, 42772), (117, 42814),

Gene: DaRealMyers_40 Start: 29957, Stop: 30646, Start Num: 19
Candidate Starts for DaRealMyers_40:
(2, 29645), (4, 29666), (11, 29786), (Start: 19 @29957 has 23 MA's), (22, 29993), (23, 29996), (35, 30080), (49, 30167), (55, 30203), (89, 30410), (98, 30506),

Gene: Darolandstone_40 Start: 31614, Stop: 32318, Start Num: 19
Candidate Starts for Darolandstone_40:

(8, 31419), (Start: 19 @31614 has 23 MA's), (23, 31653), (35, 31737), (49, 31839), (60, 31896), (75, 31989), (78, 32001), (89, 32073), (98, 32169), (102, 32184),

Gene: Denise_64 Start: 39130, Stop: 39627, Start Num: 45
Candidate Starts for Denise_64:
(21, 38968), (Start: 45 @39130 has 111 MA's), (67, 39247), (105, 39505), (113, 39565), (117, 39607),

Gene: Dillpickles_74 Start: 45865, Stop: 46359, Start Num: 45
Candidate Starts for Dillpickles_74:
(16, 45592), (21, 45703), (Start: 45 @45865 has 111 MA's), (50, 45883), (67, 45982), (105, 46237), (113, 46297),

Gene: Dolores_69 Start: 43025, Stop: 43519, Start Num: 45
Candidate Starts for Dolores_69:
(21, 42863), (Start: 45 @43025 has 111 MA's), (67, 43142), (105, 43397), (113, 43457),

Gene: EMsquaredA_72 Start: 47264, Stop: 47758, Start Num: 45
Candidate Starts for EMsquaredA_72:
(16, 46991), (21, 47102), (Start: 45 @47264 has 111 MA's), (50, 47282), (67, 47381), (83, 47459), (105, 47636), (110, 47687), (113, 47696), (117, 47738),

Gene: Eastland_42 Start: 29247, Stop: 29927, Start Num: 19
Candidate Starts for Eastland_42:
(7, 29049), (Start: 19 @29247 has 23 MA's), (35, 29370), (49, 29472),

Gene: Ebert_70 Start: 42774, Stop: 43268, Start Num: 45
Candidate Starts for Ebert_70:
(16, 42501), (21, 42612), (Start: 45 @42774 has 111 MA's), (50, 42792), (67, 42891), (105, 43146), (113, 43206), (117, 43248),

Gene: EdnaMode_66 Start: 42450, Stop: 42944, Start Num: 45
Candidate Starts for EdnaMode_66:
(16, 42177), (21, 42288), (Start: 45 @42450 has 111 MA's), (50, 42468), (67, 42567), (71, 42582), (105, 42822), (113, 42882),

Gene: Eklok_42 Start: 29046, Stop: 29726, Start Num: 18
Candidate Starts for Eklok_42:
(Start: 18 @29046 has 2 MA's), (49, 29271),

Gene: EnalisNailo_68 Start: 47756, Stop: 48250, Start Num: 45
Candidate Starts for EnalisNailo_68:
(Start: 45 @47756 has 111 MA's), (67, 47873), (105, 48128), (113, 48188), (117, 48230),

Gene: Eudoria_69 Start: 45821, Stop: 46315, Start Num: 45
Candidate Starts for Eudoria_69:
(16, 45548), (21, 45659), (Start: 45 @45821 has 111 MA's), (50, 45839), (67, 45938), (105, 46193), (113, 46253),

Gene: Eviarto_73 Start: 48758, Stop: 49252, Start Num: 45
Candidate Starts for Eviarto_73:
(16, 48485), (21, 48596), (Start: 45 @48758 has 111 MA's), (50, 48776), (67, 48875), (105, 49130), (113, 49190), (117, 49232),

Gene: Eyre_58 Start: 38119, Stop: 38631, Start Num: 45
Candidate Starts for Eyre_58:
(21, 37954), (Start: 45 @38119 has 111 MA's), (61, 38203), (67, 38245), (84, 38338), (91, 38398), (108, 38551), (113, 38569), (116, 38599), (117, 38611),

Gene: Faith5x5_62 Start: 37579, Stop: 38076, Start Num: 45
Candidate Starts for Faith5x5_62:
(21, 37417), (Start: 45 @37579 has 111 MA's), (58, 37639), (67, 37696), (105, 37954), (113, 38014), (117, 38056),

Gene: Faiyaz_82 Start: 53649, Stop: 54245, Start Num: 27
Candidate Starts for Faiyaz_82:
(Start: 27 @53649 has 4 MA's), (37, 53709), (39, 53730), (43, 53769), (46, 53790), (56, 53835), (101, 54156), (107, 54210), (111, 54231),

Gene: FeliMaine_78 Start: 42930, Stop: 43550, Start Num: 30
Candidate Starts for FeliMaine_78:
(Start: 30 @42930 has 20 MA's), (33, 42939), (36, 42960), (38, 42975), (39, 42987), (44, 43029), (48, 43053), (52, 43080), (53, 43083), (57, 43098), (69, 43167), (85, 43263), (93, 43350), (107, 43470),

Gene: Fitzgerald_55 Start: 46895, Stop: 47398, Start Num: 45
Candidate Starts for Fitzgerald_55:
(21, 46745), (Start: 45 @46895 has 111 MA's), (65, 46994), (66, 47006), (108, 47315), (113, 47333),

Gene: Floral_73 Start: 49221, Stop: 49715, Start Num: 45
Candidate Starts for Floral_73:
(16, 48948), (21, 49059), (Start: 45 @49221 has 111 MA's), (50, 49239), (67, 49338), (74, 49380), (105, 49593), (110, 49644), (113, 49653), (117, 49695),

Gene: Fosterous_58 Start: 46583, Stop: 47086, Start Num: 45
Candidate Starts for Fosterous_58:
(21, 46433), (Start: 45 @46583 has 111 MA's), (65, 46682), (66, 46694), (74, 46739), (108, 47003), (113, 47021),

Gene: FroggyToad_67 Start: 43624, Stop: 44118, Start Num: 45
Candidate Starts for FroggyToad_67:
(Start: 45 @43624 has 111 MA's), (50, 43642), (67, 43741), (105, 43996), (113, 44056), (117, 44098),

Gene: FrumpyGal_43 Start: 29247, Stop: 29927, Start Num: 19
Candidate Starts for FrumpyGal_43:
(7, 29049), (Start: 19 @29247 has 23 MA's), (35, 29370), (49, 29472),

Gene: FuegoCuervo_60 Start: 45499, Stop: 46002, Start Num: 45
Candidate Starts for FuegoCuervo_60:
(21, 45349), (Start: 45 @45499 has 111 MA's), (65, 45598), (66, 45610), (74, 45655), (108, 45919), (113, 45937),

Gene: Galadriel_57 Start: 46358, Stop: 46861, Start Num: 45
Candidate Starts for Galadriel_57:
(21, 46208), (Start: 45 @46358 has 111 MA's), (65, 46457), (66, 46469), (108, 46778), (113, 46796),

Gene: Gattaca_74 Start: 42467, Stop: 43087, Start Num: 30
Candidate Starts for Gattaca_74:

(Start: 30 @42467 has 20 MA's), (33, 42476), (36, 42497), (38, 42512), (39, 42524), (44, 42566), (48, 42590), (52, 42617), (53, 42620), (57, 42635), (69, 42704), (85, 42800), (93, 42887), (107, 43007),

Gene: GemG_67 Start: 42346, Stop: 42840, Start Num: 45
Candidate Starts for GemG_67:
(16, 42073), (21, 42184), (Start: 45 @42346 has 111 MA's), (50, 42364), (67, 42463), (105, 42718), (113, 42778), (117, 42820),

Gene: Geodirt_55 Start: 46977, Stop: 47480, Start Num: 45
Candidate Starts for Geodirt_55:
(21, 46827), (Start: 45 @46977 has 111 MA's), (65, 47076), (66, 47088), (108, 47397), (113, 47415),

Gene: Gizermo_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Gizermo_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: GoongGoong_76 Start: 42272, Stop: 42892, Start Num: 30
Candidate Starts for GoongGoong_76:
(Start: 30 @42272 has 20 MA's), (33, 42281), (36, 42302), (38, 42317), (39, 42329), (44, 42371), (48, 42395), (52, 42422), (53, 42425), (57, 42440), (69, 42509), (85, 42605), (93, 42692), (107, 42812),

Gene: HFrancette_43 Start: 30025, Stop: 30705, Start Num: 19
Candidate Starts for HFrancette_43:
(7, 29827), (Start: 19 @30025 has 23 MA's), (35, 30148), (49, 30250),

Gene: Haley23_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Haley23_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Herod_73 Start: 49177, Stop: 49671, Start Num: 45
Candidate Starts for Herod_73:
(16, 48904), (21, 49015), (Start: 45 @49177 has 111 MA's), (50, 49195), (67, 49294), (105, 49549), (113, 49609), (117, 49651),

Gene: Hilltopfarm_81 Start: 53343, Stop: 53939, Start Num: 27
Candidate Starts for Hilltopfarm_81:
(Start: 27 @53343 has 4 MA's), (37, 53403), (39, 53424), (43, 53463), (46, 53484), (56, 53529), (73, 53634), (101, 53850), (107, 53904), (111, 53925),

Gene: Hugley_71 Start: 49157, Stop: 49651, Start Num: 45
Candidate Starts for Hugley_71:
(16, 48884), (21, 48995), (Start: 45 @49157 has 111 MA's), (50, 49175), (67, 49274), (105, 49529), (113, 49589), (117, 49631),

Gene: Huphlepuff_78 Start: 42493, Stop: 43113, Start Num: 30
Candidate Starts for Huphlepuff_78:
(Start: 30 @42493 has 20 MA's), (33, 42502), (36, 42523), (38, 42538), (39, 42550), (44, 42592), (48, 42616), (52, 42643), (53, 42646), (57, 42661), (69, 42730), (85, 42826), (93, 42913), (107, 43033),

Gene: Ididsumtinwong_44 Start: 29021, Stop: 29701, Start Num: 19
Candidate Starts for Ididsumtinwong_44:

(5, 28739), (6, 28814), (Start: 19 @29021 has 23 MA's), (29, 29126), (70, 29357), (77, 29393), (89, 29474),

Gene: Ignacio_42 Start: 29928, Stop: 30608, Start Num: 19
Candidate Starts for Ignacio_42:
(7, 29730), (Start: 19 @29928 has 23 MA's), (35, 30051), (49, 30153),

Gene: JCole_64 Start: 41012, Stop: 41506, Start Num: 45
Candidate Starts for JCole_64:
(16, 40739), (Start: 45 @41012 has 111 MA's), (67, 41129), (71, 41144), (105, 41384), (113, 41444),

Gene: Jabberwocky_55 Start: 47271, Stop: 47774, Start Num: 45
Candidate Starts for Jabberwocky_55:
(21, 47121), (Start: 45 @47271 has 111 MA's), (65, 47370), (66, 47382), (108, 47691), (113, 47709),

Gene: Jablanski_75 Start: 50299, Stop: 50793, Start Num: 45
Candidate Starts for Jablanski_75:
(21, 50137), (Start: 45 @50299 has 111 MA's), (50, 50317), (67, 50416), (105, 50671), (113, 50731), (117, 50773),

Gene: Jalleen_71 Start: 43069, Stop: 43563, Start Num: 45
Candidate Starts for Jalleen_71:
(16, 42796), (21, 42907), (Start: 45 @43069 has 111 MA's), (50, 43087), (67, 43186), (105, 43441), (113, 43501), (117, 43543),

Gene: JoieB_77 Start: 42956, Stop: 43576, Start Num: 30
Candidate Starts for JoieB_77:
(Start: 30 @42956 has 20 MA's), (33, 42965), (36, 42986), (38, 43001), (39, 43013), (44, 43055), (48, 43079), (52, 43106), (53, 43109), (57, 43124), (69, 43193), (85, 43289), (93, 43376), (107, 43496),

Gene: Kamashten_55 Start: 45569, Stop: 46072, Start Num: 45
Candidate Starts for Kamashten_55:
(21, 45419), (Start: 45 @45569 has 111 MA's), (65, 45668), (66, 45680), (74, 45725), (108, 45989), (113, 46007),

Gene: Keitabear_56 Start: 47088, Stop: 47591, Start Num: 45
Candidate Starts for Keitabear_56:
(21, 46938), (Start: 45 @47088 has 111 MA's), (65, 47187), (66, 47199), (108, 47508), (113, 47526),

Gene: Kewpiedoll_57 Start: 46520, Stop: 47023, Start Num: 45
Candidate Starts for Kewpiedoll_57:
(21, 46370), (Start: 45 @46520 has 111 MA's), (65, 46619), (66, 46631), (108, 46940), (113, 46958),

Gene: Kita_70 Start: 45830, Stop: 46324, Start Num: 45
Candidate Starts for Kita_70:
(16, 45557), (21, 45668), (Start: 45 @45830 has 111 MA's), (50, 45848), (67, 45947), (105, 46202), (113, 46262),

Gene: Lamberg_63 Start: 40851, Stop: 41345, Start Num: 45
Candidate Starts for Lamberg_63:
(16, 40578), (21, 40689), (Start: 45 @40851 has 111 MA's), (50, 40869), (67, 40968), (105, 41223), (113, 41283), (117, 41325),

Gene: Lennon_57 Start: 47426, Stop: 47929, Start Num: 45
Candidate Starts for Lennon_57:
(21, 47276), (Start: 45 @47426 has 111 MA's), (65, 47525), (66, 47537), (108, 47846), (113, 47864),

Gene: Lilas_69 Start: 49294, Stop: 49788, Start Num: 45
Candidate Starts for Lilas_69:
(Start: 45 @49294 has 111 MA's), (67, 49411), (105, 49666), (113, 49726), (117, 49768),

Gene: Lilbeanie_58 Start: 42333, Stop: 42830, Start Num: 45
Candidate Starts for Lilbeanie_58:
(21, 42174), (Start: 45 @42333 has 111 MA's),

Gene: Lilbit_74 Start: 43053, Stop: 43673, Start Num: 30
Candidate Starts for Lilbit_74:
(Start: 30 @43053 has 20 MA's), (33, 43062), (36, 43083), (38, 43098), (39, 43110), (44, 43152), (48, 43176), (52, 43203), (53, 43206), (57, 43221), (69, 43290), (85, 43386), (93, 43473), (107, 43593),

Gene: Lishka_40 Start: 26725, Stop: 27405, Start Num: 19
Candidate Starts for Lishka_40:
(5, 26443), (6, 26518), (Start: 19 @26725 has 23 MA's), (29, 26830), (70, 27061), (77, 27097), (89, 27178),

Gene: LittleLaf_76 Start: 42782, Stop: 43402, Start Num: 30
Candidate Starts for LittleLaf_76:
(Start: 30 @42782 has 20 MA's), (33, 42791), (36, 42812), (38, 42827), (39, 42839), (44, 42881), (48, 42905), (52, 42932), (53, 42935), (57, 42950), (69, 43019), (85, 43115), (93, 43202), (107, 43322),

Gene: LonelyBoi_70 Start: 49387, Stop: 49881, Start Num: 45
Candidate Starts for LonelyBoi_70:
(21, 49225), (Start: 45 @49387 has 111 MA's), (67, 49504), (105, 49759), (113, 49819),

Gene: LordFarquaad_69 Start: 44519, Stop: 45013, Start Num: 45
Candidate Starts for LordFarquaad_69:
(16, 44246), (21, 44357), (Start: 45 @44519 has 111 MA's), (50, 44537), (67, 44636), (105, 44891), (113, 44951), (117, 44993),

Gene: Love_61 Start: 47798, Stop: 48301, Start Num: 45
Candidate Starts for Love_61:
(21, 47648), (Start: 45 @47798 has 111 MA's), (65, 47897), (66, 47909), (108, 48218), (113, 48236),

Gene: MakCheese_78 Start: 48973, Stop: 49467, Start Num: 45
Candidate Starts for MakCheese_78:
(21, 48811), (Start: 45 @48973 has 111 MA's), (67, 49090), (105, 49345), (113, 49405), (118, 49462),

Gene: Malisha_89 Start: 52302, Stop: 52799, Start Num: 45
Candidate Starts for Malisha_89:
(21, 52140), (Start: 45 @52302 has 111 MA's), (67, 52419), (94, 52611), (105, 52677), (113, 52737), (117, 52779),

Gene: Manasvini_71 Start: 45845, Stop: 46339, Start Num: 45
Candidate Starts for Manasvini_71:
(16, 45572), (21, 45683), (Start: 45 @45845 has 111 MA's), (50, 45863), (67, 45962), (105, 46217), (113, 46277),

Gene: Marteena_71 Start: 47264, Stop: 47758, Start Num: 45
Candidate Starts for Marteena_71:
(16, 46991), (21, 47102), (Start: 45 @47264 has 111 MA's), (50, 47282), (67, 47381), (83, 47459), (105, 47636), (110, 47687), (113, 47696), (117, 47738),

Gene: Marvin_72 Start: 42578, Stop: 43198, Start Num: 30
Candidate Starts for Marvin_72:
(Start: 30 @42578 has 20 MA's), (33, 42587), (36, 42608), (38, 42623), (39, 42635), (44, 42677), (48, 42701), (52, 42728), (53, 42731), (57, 42746), (69, 42815), (85, 42911), (93, 42998), (107, 43118),

Gene: Matteo_61 Start: 40883, Stop: 41377, Start Num: 45
Candidate Starts for Matteo_61:
(16, 40610), (21, 40721), (Start: 45 @40883 has 111 MA's), (50, 40901), (67, 41000), (71, 41015), (105, 41255), (113, 41315), (117, 41357),

Gene: McCrothy_57 Start: 46928, Stop: 47431, Start Num: 45
Candidate Starts for McCrothy_57:
(21, 46778), (Start: 45 @46928 has 111 MA's), (65, 47027), (66, 47039), (108, 47348), (113, 47366),

Gene: McKinley_59 Start: 46926, Stop: 47432, Start Num: 45
Candidate Starts for McKinley_59:
(21, 46776), (Start: 45 @46926 has 111 MA's), (65, 47025), (66, 47037), (108, 47346), (113, 47364),

Gene: Mcklovin_69 Start: 49599, Stop: 50093, Start Num: 45
Candidate Starts for Mcklovin_69:
(21, 49437), (Start: 45 @49599 has 111 MA's), (67, 49716), (105, 49971), (113, 50031), (117, 50073),

Gene: Mocha12_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Mocha12_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Mojorita_42 Start: 29163, Stop: 29900, Start Num: 19
Candidate Starts for Mojorita_42:
(Start: 19 @29163 has 23 MA's), (41, 29343), (67, 29496), (89, 29634), (96, 29712), (112, 29820),

Gene: MoontowerMania_56 Start: 46803, Stop: 47309, Start Num: 45
Candidate Starts for MoontowerMania_56:
(21, 46653), (Start: 45 @46803 has 111 MA's), (65, 46902), (66, 46914), (108, 47223), (113, 47241),

Gene: MosMoris_73 Start: 42473, Stop: 43093, Start Num: 30
Candidate Starts for MosMoris_73:
(Start: 30 @42473 has 20 MA's), (33, 42482), (36, 42503), (38, 42518), (39, 42530), (44, 42572), (48, 42596), (52, 42623), (53, 42626), (57, 42641), (69, 42710), (85, 42806), (93, 42893), (107, 43013),

Gene: Neobush_71 Start: 46389, Stop: 46883, Start Num: 45
Candidate Starts for Neobush_71:
(16, 46116), (21, 46227), (Start: 45 @46389 has 111 MA's), (50, 46407), (67, 46506), (105, 46761), (113, 46821),

Gene: Nettuno_64 Start: 41296, Stop: 41790, Start Num: 45
Candidate Starts for Nettuno_64:

(16, 41023), (21, 41134), (Start: 45 @41296 has 111 MA's), (50, 41314), (67, 41413), (71, 41428), (105, 41668), (113, 41728), (117, 41770),

Gene: Nordenberg_52 Start: 45708, Stop: 46211, Start Num: 45
Candidate Starts for Nordenberg_52:
(21, 45558), (Start: 45 @45708 has 111 MA's), (65, 45807), (66, 45819), (74, 45864), (113, 46146),

Gene: Nymphadora_73 Start: 48782, Stop: 49276, Start Num: 45
Candidate Starts for Nymphadora_73:
(16, 48509), (21, 48620), (Start: 45 @48782 has 111 MA's), (50, 48800), (67, 48899), (105, 49154), (113, 49214), (117, 49256),

Gene: PantheRoc_75 Start: 48476, Stop: 48970, Start Num: 45
Candidate Starts for PantheRoc_75:
(16, 48203), (21, 48314), (Start: 45 @48476 has 111 MA's), (50, 48494), (67, 48593), (105, 48848), (113, 48908), (117, 48950),

Gene: PapayaSalad_42 Start: 29311, Stop: 29991, Start Num: 19
Candidate Starts for PapayaSalad_42:
(Start: 19 @29311 has 23 MA's), (29, 29416), (70, 29647), (77, 29683), (89, 29764),

Gene: Paries_60 Start: 47185, Stop: 47688, Start Num: 45
Candidate Starts for Paries_60:
(21, 47035), (Start: 45 @47185 has 111 MA's), (65, 47284), (66, 47296), (108, 47605), (113, 47623),

Gene: Pepperoni_60 Start: 37588, Stop: 38085, Start Num: 45
Candidate Starts for Pepperoni_60:
(Start: 45 @37588 has 111 MA's), (67, 37705), (105, 37963), (113, 38023), (117, 38065),

Gene: PhriskyACE_65 Start: 43638, Stop: 44132, Start Num: 45
Candidate Starts for PhriskyACE_65:
(Start: 45 @43638 has 111 MA's), (67, 43755), (105, 44010), (113, 44070), (117, 44112),

Gene: Picard_42 Start: 29361, Stop: 30098, Start Num: 19
Candidate Starts for Picard_42:
(Start: 19 @29361 has 23 MA's), (41, 29541), (89, 29832), (112, 30018),

Gene: Piccadilly_42 Start: 29246, Stop: 29926, Start Num: 19
Candidate Starts for Piccadilly_42:
(7, 29048), (Start: 19 @29246 has 23 MA's), (35, 29369), (49, 29471),

Gene: Pickett_64 Start: 41055, Stop: 41549, Start Num: 45
Candidate Starts for Pickett_64:
(16, 40782), (21, 40893), (Start: 45 @41055 has 111 MA's), (50, 41073), (67, 41172), (71, 41187), (105, 41427), (113, 41487),

Gene: Poise_77 Start: 42369, Stop: 42989, Start Num: 30
Candidate Starts for Poise_77:
(Start: 30 @42369 has 20 MA's), (33, 42378), (36, 42399), (38, 42414), (39, 42426), (44, 42468), (48, 42492), (52, 42519), (53, 42522), (57, 42537), (69, 42606), (85, 42702), (93, 42789), (107, 42909),

Gene: Pollux_75 Start: 49221, Stop: 49715, Start Num: 45
Candidate Starts for Pollux_75:

(16, 48948), (21, 49059), (Start: 45 @49221 has 111 MA's), (50, 49239), (67, 49338), (74, 49380), (105, 49593), (110, 49644), (113, 49653), (117, 49695),

Gene: Polly_66 Start: 45264, Stop: 45758, Start Num: 45
Candidate Starts for Polly_66:
(16, 44991), (21, 45102), (Start: 45 @45264 has 111 MA's), (50, 45282), (67, 45381), (105, 45636), (113, 45696),

Gene: Posh_73 Start: 49095, Stop: 49589, Start Num: 45
Candidate Starts for Posh_73:
(21, 48933), (Start: 45 @49095 has 111 MA's), (50, 49113), (67, 49212), (71, 49227), (105, 49467), (113, 49527), (117, 49569),

Gene: Powerball_67 Start: 43741, Stop: 44235, Start Num: 45
Candidate Starts for Powerball_67:
(Start: 45 @43741 has 111 MA's), (67, 43858), (105, 44113), (113, 44173), (117, 44215),

Gene: Pringar_74 Start: 42294, Stop: 42914, Start Num: 30
Candidate Starts for Pringar_74:
(Start: 30 @42294 has 20 MA's), (33, 42303), (36, 42324), (38, 42339), (39, 42351), (44, 42393), (48, 42417), (52, 42444), (53, 42447), (57, 42462), (69, 42531), (85, 42627), (93, 42714), (107, 42834),

Gene: Pytheas_76 Start: 50298, Stop: 50792, Start Num: 45
Candidate Starts for Pytheas_76:
(21, 50136), (Start: 45 @50298 has 111 MA's), (50, 50316), (67, 50415), (105, 50670), (113, 50730), (117, 50772),

Gene: Raela_77 Start: 42920, Stop: 43540, Start Num: 30
Candidate Starts for Raela_77:
(Start: 30 @42920 has 20 MA's), (33, 42929), (36, 42950), (38, 42965), (39, 42977), (44, 43019), (48, 43043), (52, 43070), (53, 43073), (57, 43088), (69, 43157), (85, 43253), (93, 43340), (107, 43460),

Gene: Raleigh_40 Start: 31982, Stop: 32686, Start Num: 19
Candidate Starts for Raleigh_40:
(8, 31787), (Start: 19 @31982 has 23 MA's), (20, 31997), (23, 32021), (35, 32105), (60, 32264), (75, 32357), (89, 32441), (98, 32537), (102, 32552), (109, 32606),

Gene: RedRaider77_76 Start: 42314, Stop: 42934, Start Num: 30
Candidate Starts for RedRaider77_76:
(Start: 30 @42314 has 20 MA's), (33, 42323), (36, 42344), (38, 42359), (39, 42371), (44, 42413), (48, 42437), (52, 42464), (53, 42467), (57, 42482), (69, 42551), (85, 42647), (93, 42734), (107, 42854),

Gene: RiverRaider_57 Start: 44819, Stop: 45298, Start Num: 45
Candidate Starts for RiverRaider_57:
(21, 44669), (24, 44687), (Start: 45 @44819 has 111 MA's), (51, 44834), (64, 44891), (83, 44993),

Gene: Rofo_57 Start: 46533, Stop: 47036, Start Num: 45
Candidate Starts for Rofo_57:
(21, 46383), (Start: 45 @46533 has 111 MA's), (65, 46632), (66, 46644), (74, 46689), (88, 46776), (108, 46953), (113, 46971),

Gene: SPB78_58 Start: 39567, Stop: 40202, Start Num: 119
Candidate Starts for SPB78_58:

(1, 38469), (9, 38598), (14, 38634), (15, 38691), (26, 38865), (42, 38982), (47, 39018), (97, 39390), (99, 39402), (100, 39414), (104, 39423), (119, 39567), (120, 39582), (121, 39627), (123, 39660), (124, 39666), (125, 39690), (126, 39753), (127, 39801), (128, 39813), (129, 39912), (130, 40137),

Gene: SV1_39 Start: 28072, Stop: 28803, Start Num: 19
Candidate Starts for SV1_39:
(Start: 19 @28072 has 23 MA's), (112, 28723),

Gene: Sahara_66 Start: 42163, Stop: 42657, Start Num: 45
Candidate Starts for Sahara_66:
(16, 41890), (21, 42001), (Start: 45 @42163 has 111 MA's), (50, 42181), (67, 42280), (105, 42535), (113, 42595), (117, 42637),

Gene: Sanjuju_55 Start: 47028, Stop: 47531, Start Num: 45
Candidate Starts for Sanjuju_55:
(21, 46878), (Start: 45 @47028 has 111 MA's), (65, 47127), (66, 47139), (108, 47448), (113, 47466),

Gene: Savage_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Savage_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Schlegelian_43 Start: 29811, Stop: 30476, Start Num: 19
Candidate Starts for Schlegelian_43:
(7, 29613), (Start: 19 @29811 has 23 MA's), (35, 29934), (49, 30036), (62, 30102), (68, 30141),

Gene: Sedona_56 Start: 46768, Stop: 47271, Start Num: 45
Candidate Starts for Sedona_56:
(21, 46618), (Start: 45 @46768 has 111 MA's), (65, 46867), (66, 46879), (108, 47188), (113, 47206),

Gene: Sekhmet_68 Start: 43424, Stop: 43918, Start Num: 45
Candidate Starts for Sekhmet_68:
(21, 43262), (Start: 45 @43424 has 111 MA's), (67, 43541), (105, 43796), (113, 43856),

Gene: Shivanishola_56 Start: 45489, Stop: 45995, Start Num: 45
Candidate Starts for Shivanishola_56:
(21, 45339), (Start: 45 @45489 has 111 MA's), (65, 45588), (66, 45600), (108, 45909), (113, 45927),

Gene: Sidious_70 Start: 48063, Stop: 48557, Start Num: 45
Candidate Starts for Sidious_70:
(16, 47790), (21, 47901), (Start: 45 @48063 has 111 MA's), (50, 48081), (67, 48180), (105, 48435), (113, 48495), (117, 48537),

Gene: Sitar_57 Start: 47426, Stop: 47929, Start Num: 45
Candidate Starts for Sitar_57:
(21, 47276), (Start: 45 @47426 has 111 MA's), (65, 47525), (66, 47537), (108, 47846), (113, 47864),

Gene: Sleepyhead_59 Start: 39006, Stop: 39626, Start Num: 40
Candidate Starts for Sleepyhead_59:
(12, 38670), (28, 38931), (Start: 40 @39006 has 1 MA's), (53, 39093), (80, 39246), (81, 39252), (82, 39264), (90, 39342), (103, 39441), (106, 39489), (114, 39531),

Gene: SoJo_40 Start: 29952, Stop: 30641, Start Num: 19

Candidate Starts for SoJo_40:
(2, 29640), (4, 29661), (11, 29781), (Start: 19 @29952 has 23 MA's), (22, 29988), (23, 29991), (35, 30075), (49, 30162), (55, 30198), (89, 30405), (98, 30501),

Gene: SoilAssassin_66 Start: 44537, Stop: 45031, Start Num: 45
Candidate Starts for SoilAssassin_66:
(16, 44264), (21, 44375), (Start: 45 @44537 has 111 MA's), (50, 44555), (67, 44654), (105, 44909), (113, 44969), (117, 45011),

Gene: Sproutie_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Sproutie_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Stultus_54 Start: 45669, Stop: 46175, Start Num: 45
Candidate Starts for Stultus_54:
(21, 45519), (Start: 45 @45669 has 111 MA's), (65, 45768), (66, 45780), (74, 45825), (108, 46089), (113, 46107),

Gene: Suerte_63 Start: 43039, Stop: 43533, Start Num: 45
Candidate Starts for Suerte_63:
(21, 42877), (Start: 45 @43039 has 111 MA's), (67, 43156), (105, 43411), (113, 43471), (118, 43528),

Gene: Suscepit_69 Start: 45822, Stop: 46316, Start Num: 45
Candidate Starts for Suscepit_69:
(16, 45549), (21, 45660), (Start: 45 @45822 has 111 MA's), (50, 45840), (67, 45939), (105, 46194), (113, 46254),

Gene: Tangent_58 Start: 46156, Stop: 46659, Start Num: 45
Candidate Starts for Tangent_58:
(21, 46006), (Start: 45 @46156 has 111 MA's), (65, 46255), (66, 46267), (74, 46312), (88, 46399), (108, 46576), (113, 46594),

Gene: Tayonia_69 Start: 45821, Stop: 46315, Start Num: 45
Candidate Starts for Tayonia_69:
(16, 45548), (21, 45659), (Start: 45 @45821 has 111 MA's), (50, 45839), (67, 45938), (105, 46193), (113, 46253),

Gene: Tesla_73 Start: 42163, Stop: 42783, Start Num: 30
Candidate Starts for Tesla_73:
(Start: 30 @42163 has 20 MA's), (33, 42172), (36, 42193), (38, 42208), (39, 42220), (44, 42262), (48, 42286), (52, 42313), (53, 42316), (57, 42331), (69, 42400), (85, 42496), (93, 42583), (107, 42703),

Gene: Thing3_55 Start: 45569, Stop: 46072, Start Num: 45
Candidate Starts for Thing3_55:
(21, 45419), (Start: 45 @45569 has 111 MA's), (65, 45668), (66, 45680), (74, 45725), (108, 45989), (113, 46007),

Gene: TimTam_73 Start: 48782, Stop: 49276, Start Num: 45
Candidate Starts for TimTam_73:
(16, 48509), (21, 48620), (Start: 45 @48782 has 111 MA's), (50, 48800), (67, 48899), (105, 49154), (113, 49214), (117, 49256),

Gene: ToastyFinz_39 Start: 30745, Stop: 31443, Start Num: 19
Candidate Starts for ToastyFinz_39:
(2, 30439), (4, 30460), (11, 30580), (Start: 19 @30745 has 23 MA's), (49, 30955), (59, 31003), (89, 31198), (98, 31294),

Gene: Trumpet_69 Start: 45822, Stop: 46316, Start Num: 45
Candidate Starts for Trumpet_69:
(16, 45549), (21, 45660), (Start: 45 @45822 has 111 MA's), (50, 45840), (67, 45939), (105, 46194), (113, 46254),

Gene: Tubberson_40 Start: 29954, Stop: 30643, Start Num: 19
Candidate Starts for Tubberson_40:
(2, 29642), (4, 29663), (11, 29783), (Start: 19 @29954 has 23 MA's), (22, 29990), (23, 29993), (35, 30077), (49, 30164), (55, 30200), (89, 30407), (98, 30503),

Gene: TuertoX_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for TuertoX_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Typha_80 Start: 53643, Stop: 54239, Start Num: 27
Candidate Starts for Typha_80:
(Start: 27 @53643 has 4 MA's), (37, 53703), (39, 53724), (43, 53763), (46, 53784), (56, 53829), (101, 54150), (107, 54204), (111, 54225),

Gene: VWB_50 Start: 37705, Stop: 38505, Start Num: 19
Candidate Starts for VWB_50:
(10, 37534), (13, 37555), (Start: 19 @37705 has 23 MA's), (25, 37765), (29, 37810), (54, 37966), (70, 38062), (72, 38080), (122, 38494),

Gene: VasuNzinga_75 Start: 42252, Stop: 42872, Start Num: 30
Candidate Starts for VasuNzinga_75:
(Start: 30 @42252 has 20 MA's), (33, 42261), (36, 42282), (38, 42297), (39, 42309), (44, 42351), (48, 42375), (52, 42402), (53, 42405), (57, 42420), (69, 42489), (85, 42585), (93, 42672), (107, 42792),

Gene: Vivi2_61 Start: 47633, Stop: 48136, Start Num: 45
Candidate Starts for Vivi2_61:
(21, 47483), (Start: 45 @47633 has 111 MA's), (65, 47732), (66, 47744), (108, 48053), (113, 48071),

Gene: Vondra_41 Start: 29098, Stop: 29778, Start Num: 19
Candidate Starts for Vondra_41:
(3, 28798), (Start: 19 @29098 has 23 MA's), (33, 29209), (49, 29323),

Gene: Whiteclaw_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Whiteclaw_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: WinkNick_69 Start: 42948, Stop: 43442, Start Num: 45
Candidate Starts for WinkNick_69:
(21, 42786), (Start: 45 @42948 has 111 MA's), (67, 43065), (105, 43320), (113, 43380),

Gene: Wrigley_75 Start: 48678, Stop: 49172, Start Num: 45

Candidate Starts for Wrigley_75:
(21, 48516), (Start: 45 @48678 has 111 MA's), (50, 48696), (67, 48795), (71, 48810), (105, 49050), (113, 49110), (117, 49152),

Gene: Yeet412_65 Start: 43341, Stop: 43835, Start Num: 45
Candidate Starts for Yeet412_65:
(16, 43068), (21, 43179), (Start: 45 @43341 has 111 MA's), (50, 43359), (67, 43458), (71, 43473), (105, 43713), (113, 43773), (117, 43815),

Gene: Yinzer_67 Start: 42342, Stop: 42836, Start Num: 45
Candidate Starts for Yinzer_67:
(16, 42069), (21, 42180), (Start: 45 @42342 has 111 MA's), (50, 42360), (67, 42459), (105, 42714), (113, 42774), (117, 42816),

Gene: Zameen_69 Start: 45821, Stop: 46315, Start Num: 45
Candidate Starts for Zameen_69:
(16, 45548), (21, 45659), (Start: 45 @45821 has 111 MA's), (50, 45839), (67, 45938), (105, 46193), (113, 46253),

Gene: Zirinka_67 Start: 47483, Stop: 47977, Start Num: 45
Candidate Starts for Zirinka_67:
(16, 47210), (21, 47321), (Start: 45 @47483 has 111 MA's), (50, 47501), (67, 47600), (71, 47615), (105, 47855), (113, 47915), (117, 47957),