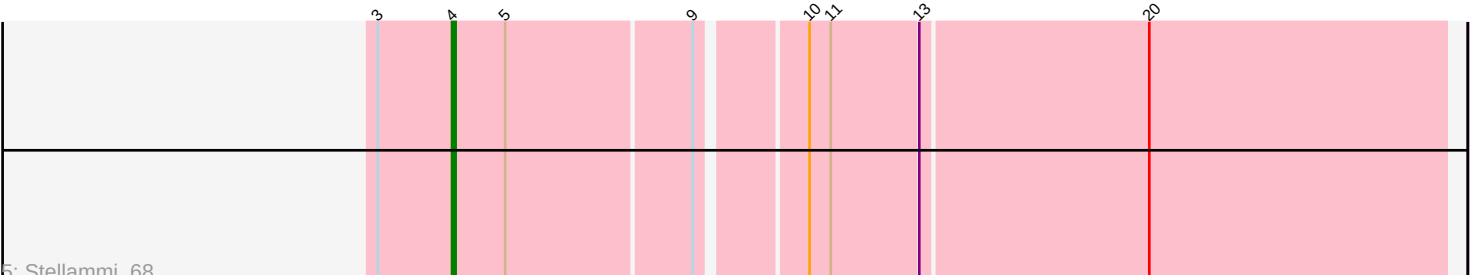
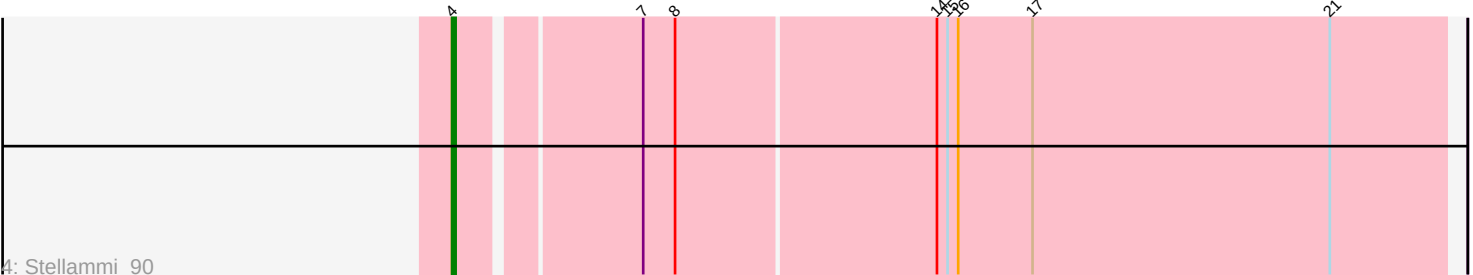
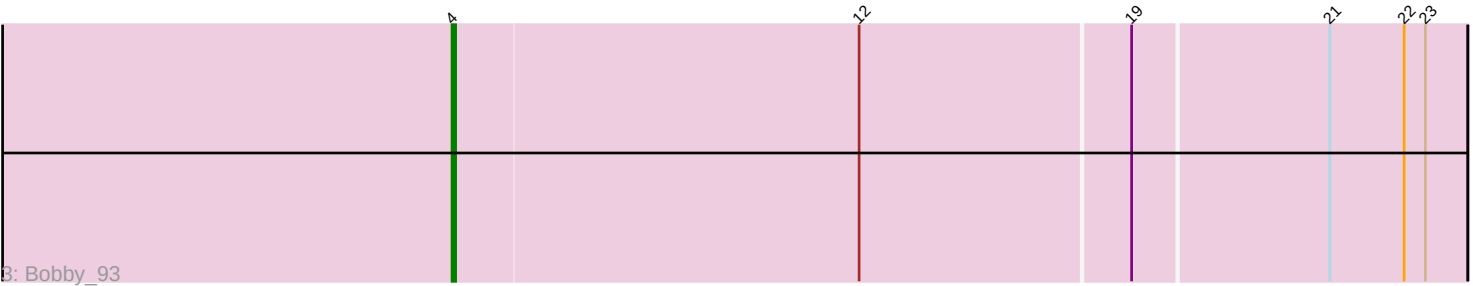
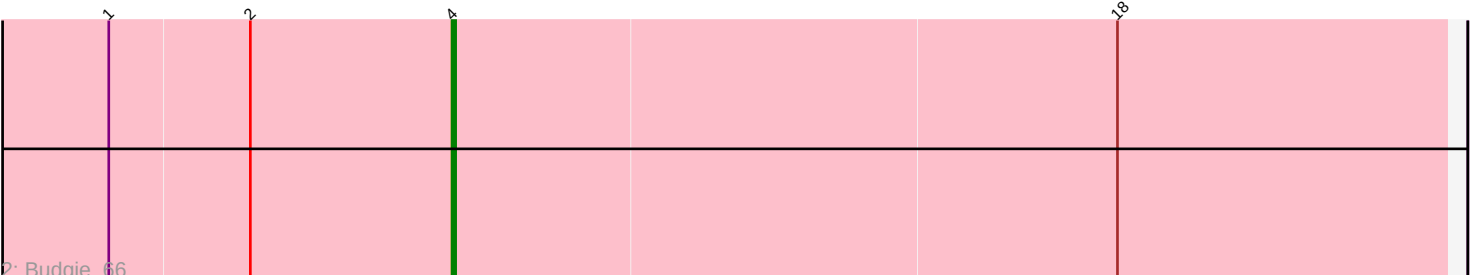


Pham 324924



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 324924 Report

This analysis was run 09/05/26 on database version 662.

Pham number 324924 has 148 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Henry_59, Kanye_56, ABCat_58, Holt_65, SirDuracell_59, TeardropMSU_56, ShamWow_60, Qualification_61, Phaux_62, StolenFromERC_63, Tuco_61, Thimble_61, Highbury_61, Rimmer_61, Amao_60, NoSleep_62, Bask21_61, Pumpkin_62, Simpliphy_59, Czystczon1_61, Nala_61, Stank_64, MollyToe_55, Adnama_64, Paperbeatsrock_59, Hoonter_63, Sassay_54, RiverMonster_61, Dumbo_60, Manda_60, TBrady12_63, Sotrice96_61, BigBubba_61, Inca_57, GoldenSpark_63, Brewer_55, Youngblood_62, Bogg_60, BilboSwaggins_59, Becksu_60, Icee_60, MPhalcon_60, Elph10_60, AmericanBeauty_64, Lilac_62, Phrux_58, Buck_61, Kostya_61, Nimrod_62, Contagion_57, Cactus_62, Bench_62, DrDrey_59, Willez_54, PhatBacter_63, 244_61, StormChicken_62, Porky_59, Tarkin_59, FairyPath_60, Flypotenuse_55, Easy2Say_61, Harella_60, Lilizi_60, DoctorDiddles_60, Greep_64, Maxxinista_63, Misfit_62, GooberAzure_63, Thresher_63, Traaww1_56, Glexan_58, BadStone_58, FoghornLeghorn_55, Lilpickle_60, MadamMonkfish_60, ChosenOne_61, Goldilocks_62, CrystalP_60, Murica_62, Gage_62, Terminus_62, ChotaBhai_60, Murphy_62, Pat3_58, IHOP_58, Bruin_56, Liveloughbron_63, Ptowny_58, Asriel_60, ShereKhan_58, HanKaySha_59, Command613_62, Teaspoon_61, Gemini_64, OrionPax_59, Palpatine_63, Stark_61, Policronamos_63, Balomoji_59, StellaBean_58, Gator_58, Dusk_57, Pharsalus_58, BaboJay_56, Cjw1_60, BugsBunny_61, JeTaime_60, Miniwave_56, xkcd_64, Elite2014_60, Rakim_62, HufflyPuff_62, Moldemort_63, Emmina_60, Tomaszewski_55, NonchalantPear_61, Mindy_59, Mosby_56, Kimchi_63, Ukulele_57, Hopey_60, Marshmallow_59, Cookies_57, Saints25_61, Barbarian_60, YassJohnny_56, Phaja_58, Petra64142_65, PaddyBaddy_60, Goku_58, Argent26_63, FireRed_63, Wiggin_62, SophKB_57, Myrale_60, NelitzaMV_57, Toto_59, Daikon_62, Xandras_60, Filch_61, Eureka_58, MISSy_60, TeamEdward_63
- Track 2 : Budgie_66
- Track 3 : Bobby_93
- Track 4 : Stellammi_90
- Track 5 : Stellammi_68

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

The start number called the most often in the published annotations is 4, it was called in 137 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_61, ABCat_58, Adnama_64, Amao_60, AmericanBeauty_64, Argent26_63, Asriel_60, BaboJay_56, BadStone_58, Balomoji_59, Barbarian_60, Bask21_61, Becksu_60, Bench_62, BigBubba_61, BilboSwaggins_59, Bobby_93, Bogg_60, Brewer_55, Bruin_56, Buck_61, Budgie_66, BugsBunny_61, Cactus_62, ChosenOne_61, ChotaBhai_60, Cjw1_60, Command613_62, Contagion_57, Cookies_57, CrystalP_60, Czyszczo1_61, Daikon_62, DoctorDiddles_60, DrDrey_59, Dumbo_60, Dusk_57, Easy2Say_61, Elite2014_60, Elph10_60, Emmina_60, Eureka_58, FairyPath_60, Filch_61, FireRed_63, Flypotenuse_55, FoghornLeghorn_55, Gage_62, Gator_58, Gemini_64, Glexan_58, Goku_58, GoldenSpark_63, Goldilocks_62, GooberAzure_63, Greep_64, HanKaySha_59, Harella_60, Henry_59, Highbury_61, Holt_65, Hoonter_63, Hopey_60, HuffyPuff_62, IHOP_58, Icee_60, Inca_57, JeTaima_60, Kanye_56, Kimchi_63, Kostya_61, Lilac_62, Lilizi_60, Lilpickle_60, Liveloughbron_63, MISSy_60, MPhalcon_60, MadamMonkfish_60, Manda_60, Marshmallow_59, Maxxinista_63, Mindy_59, Miniwave_56, Misfit_62, Moldemort_63, MollyToe_55, Mosby_56, Murica_62, Murphy_62, Myrale_60, Nala_61, NelitzaMV_57, Nimrod_62, NoSleep_62, NonchalantPear_61, OrionPax_59, PaddyBaddy_60, Palpatine_63, Paperbeatsrock_59, Pat3_58, Petra64142_65, Phaja_58, Pharsalus_58, PhatBacter_63, Phaux_62, Phrux_58, Policronamos_63, Porky_59, Ptowny_58, Pumpkin_62, Quallification_61, Rakim_62, Rimmer_61, RiverMonster_61, Saints25_61, Sassay_54, ShamWow_60, ShereKhan_58, Simpliphy_59, SirDuracell_59, SophKB_57, Sotrice96_61, Stank_64, Stark_61, StellaBean_58, Stellammi_68, Stellammi_90, StolenFromERC_63, StormChicken_62, TBrady12_63, Tarkin_59, TeamEdward_63, TeardropMSU_56, Teaspoon_61, Terminus_62, Thimble_61, Thresher_63, Tomaszewski_55, Toto_59, Traaww1_56, Tucco_61, Ukulele_57, Wiggin_62, Willez_54, Xandras_60, YassJohnny_56, Youngblood_62, xkcd_64,

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

-

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

-

Summary by start number:

Start 4:

- Found in 148 of 148 (100.0%) of genes in pham
- Manual Annotations of this start: 137 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244_61 (E), ABCat_58 (E), Adnama_64 (E), Amao_60 (E), AmericanBeauty_64 (E), Argent26_63 (E), Asriel_60 (E), BaboJay_56 (E), BadStone_58 (E), Balomoji_59 (E), Barbarian_60 (E), Bask21_61 (E), Becksu_60 (E), Bench_62 (E), BigBubba_61 (E), BilboSwaggins_59 (E), Bobby_93 (J), Bogg_60 (E), Brewer_55 (E), Bruin_56 (E), Buck_61 (E), Budgie_66 (E), BugsBunny_61 (E), Cactus_62 (E), ChosenOne_61 (E), ChotaBhai_60 (E), Cjw1_60 (E), Command613_62 (E), Contagion_57 (E), Cookies_57 (E), CrystalP_60 (E), Czyszczo1_61 (E), Daikon_62 (E), DoctorDiddles_60 (E), DrDrey_59 (E), Dumbo_60 (E), Dusk_57 (E), Easy2Say_61 (E), Elite2014_60 (E), Elph10_60 (E),

Emmina_60 (E), Eureka_58 (E), FairyPath_60 (E), Filch_61 (E), FireRed_63 (E), Flypotenuse_55 (E), FoghornLeghorn_55 (E), Gage_62 (E), Gator_58 (E), Gemini_64 (E), Glexan_58 (E), Goku_58 (E), GoldenSpark_63 (E), Goldilocks_62 (E), GooberAzure_63 (E), Greep_64 (E), HanKaySha_59 (E), Harella_60 (E), Henry_59 (E), Highbury_61 (E), Holt_65 (E), Hoonter_63 (E), Hopey_60 (E), HuffyPuff_62 (E), IHOP_58 (E), Icee_60 (E), Inca_57 (E), JeTaimie_60 (E), Kanye_56 (E), Kimchi_63 (E), Kostya_61 (E), Lilac_62 (E), Lilizi_60 (E), Lilpickle_60 (E), Liveloughbron_63 (E), MISSy_60 (E), MPhalcon_60 (E), MadamMonkfish_60 (E), Manda_60 (E), Marshmallow_59 (E), Maxxinista_63 (E), Mindy_59 (E), Miniwave_56 (E), Misfit_62 (E), Moldemort_63 (E), MollyToe_55 (E), Mosby_56 (E), Murica_62 (E), Murphy_62 (E), Myrale_60 (E), Nala_61 (E), NelitzaMV_57 (E), Nimrod_62 (E), NoSleep_62 (E), NonchalantPear_61 (E), OrionPax_59 (E), PaddyBaddy_60 (E), Palpatine_63 (E), Paperbeatsrock_59 (E), Pat3_58 (E), Petra64142_65 (E), Phaja_58 (E), Pharsalus_58 (E), PhatBacter_63 (E), Phaux_62 (E), Phrux_58 (E), Policronamos_63 (E), Porky_59 (E), Ptowny_58 (E), Pumpkin_62 (E), Quallification_61 (E), Rakim_62 (E), Rimmer_61 (E), RiverMonster_61 (E), Saints25_61 (E), Sassay_54 (E), ShamWow_60 (E), ShereKhan_58 (E), Simpliphy_59 (E), SirDuracell_59 (E), SophKB_57 (E), Sotrice96_61 (E), Stank_64 (E), Stark_61 (E), StellaBean_58 (E), Stellammi_68 (UNK), Stellammi_90 (UNK), StolenFromERC_63 (E), StormChicken_62 (E), TBrady12_63 (E), Tarkin_59 (E), TeamEdward_63 (E), TeardropMSU_56 (E), Teaspoon_61 (E), Terminus_62 (E), Thimble_61 (E), Thresher_63 (E), Tomaszewski_55 (E), Toto_59 (E), Traaww1_56 (E), Tuco_61 (E), Ukulele_57 (E), Wiggin_62 (E), Willez_54 (E), Xandras_60 (E), YassJohnny_56 (E), Youngblood_62 (E), xkcd_64 (E),

Summary by clusters:

There are 3 clusters represented in this pham: J, UNK, E,

Info for manual annotations of cluster E:

- Start number 4 was manually annotated 134 times for cluster E.

Info for manual annotations of cluster J:

- Start number 4 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster UNK:

- Start number 4 was manually annotated 2 times for cluster UNK.

Gene Information:

Gene: 244_61 Start: 41693, Stop: 41971, Start Num: 4

Candidate Starts for 244_61:

(1, 41597), (2, 41636), (Start: 4 @41693 has 137 MA's), (6, 41732),

Gene: ABCat_58 Start: 42338, Stop: 42616, Start Num: 4

Candidate Starts for ABCat_58:

(1, 42242), (2, 42281), (Start: 4 @42338 has 137 MA's), (6, 42377),

Gene: Adnama_64 Start: 42361, Stop: 42639, Start Num: 4

Candidate Starts for Adnama_64:

(1, 42265), (2, 42304), (Start: 4 @42361 has 137 MA's), (6, 42400),

Gene: Amao_60 Start: 41456, Stop: 41734, Start Num: 4
Candidate Starts for Amao_60:
(1, 41360), (2, 41399), (Start: 4 @41456 has 137 MA's), (6, 41495),

Gene: AmericanBeauty_64 Start: 42206, Stop: 42484, Start Num: 4
Candidate Starts for AmericanBeauty_64:
(1, 42110), (2, 42149), (Start: 4 @42206 has 137 MA's), (6, 42245),

Gene: Argent26_63 Start: 41844, Stop: 42122, Start Num: 4
Candidate Starts for Argent26_63:
(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Asriel_60 Start: 40698, Stop: 40976, Start Num: 4
Candidate Starts for Asriel_60:
(1, 40602), (2, 40641), (Start: 4 @40698 has 137 MA's), (6, 40737),

Gene: BaboJay_56 Start: 41238, Stop: 41516, Start Num: 4
Candidate Starts for BaboJay_56:
(1, 41142), (2, 41181), (Start: 4 @41238 has 137 MA's), (6, 41277),

Gene: BadStone_58 Start: 41907, Stop: 42185, Start Num: 4
Candidate Starts for BadStone_58:
(1, 41811), (2, 41850), (Start: 4 @41907 has 137 MA's), (6, 41946),

Gene: Balomoji_59 Start: 42175, Stop: 42453, Start Num: 4
Candidate Starts for Balomoji_59:
(1, 42079), (2, 42118), (Start: 4 @42175 has 137 MA's), (6, 42214),

Gene: Barbarian_60 Start: 40698, Stop: 40976, Start Num: 4
Candidate Starts for Barbarian_60:
(1, 40602), (2, 40641), (Start: 4 @40698 has 137 MA's), (6, 40737),

Gene: Bask21_61 Start: 41014, Stop: 41292, Start Num: 4
Candidate Starts for Bask21_61:
(1, 40918), (2, 40957), (Start: 4 @41014 has 137 MA's), (6, 41053),

Gene: Becksu_60 Start: 42241, Stop: 42519, Start Num: 4
Candidate Starts for Becksu_60:
(1, 42145), (2, 42184), (Start: 4 @42241 has 137 MA's), (6, 42280),

Gene: Bench_62 Start: 41676, Stop: 41954, Start Num: 4
Candidate Starts for Bench_62:
(1, 41580), (2, 41619), (Start: 4 @41676 has 137 MA's), (6, 41715),

Gene: BigBubba_61 Start: 41717, Stop: 41995, Start Num: 4
Candidate Starts for BigBubba_61:
(1, 41621), (2, 41660), (Start: 4 @41717 has 137 MA's), (6, 41756),

Gene: BilboSwaggins_59 Start: 42346, Stop: 42624, Start Num: 4
Candidate Starts for BilboSwaggins_59:
(1, 42250), (2, 42289), (Start: 4 @42346 has 137 MA's), (6, 42385),

Gene: Bobby_93 Start: 59900, Stop: 60181, Start Num: 4
Candidate Starts for Bobby_93:
(Start: 4 @59900 has 137 MA's), (12, 60014), (19, 60089), (21, 60143), (22, 60164), (23, 60170),

Gene: Bogg_60 Start: 40990, Stop: 41268, Start Num: 4
Candidate Starts for Bogg_60:
(1, 40894), (2, 40933), (Start: 4 @40990 has 137 MA's), (6, 41029),

Gene: Brewer_55 Start: 40506, Stop: 40784, Start Num: 4
Candidate Starts for Brewer_55:
(1, 40410), (2, 40449), (Start: 4 @40506 has 137 MA's), (6, 40545),

Gene: Bruin_56 Start: 40585, Stop: 40863, Start Num: 4
Candidate Starts for Bruin_56:
(1, 40489), (2, 40528), (Start: 4 @40585 has 137 MA's), (6, 40624),

Gene: Buck_61 Start: 42292, Stop: 42570, Start Num: 4
Candidate Starts for Buck_61:
(1, 42196), (2, 42235), (Start: 4 @42292 has 137 MA's), (6, 42331),

Gene: Budgie_66 Start: 41986, Stop: 42264, Start Num: 4
Candidate Starts for Budgie_66:
(1, 41890), (2, 41929), (Start: 4 @41986 has 137 MA's), (18, 42172),

Gene: BugsBunny_61 Start: 42123, Stop: 42401, Start Num: 4
Candidate Starts for BugsBunny_61:
(1, 42027), (2, 42066), (Start: 4 @42123 has 137 MA's), (6, 42162),

Gene: Cactus_62 Start: 41065, Stop: 41343, Start Num: 4
Candidate Starts for Cactus_62:
(1, 40969), (2, 41008), (Start: 4 @41065 has 137 MA's), (6, 41104),

Gene: ChosenOne_61 Start: 41365, Stop: 41643, Start Num: 4
Candidate Starts for ChosenOne_61:
(1, 41269), (2, 41308), (Start: 4 @41365 has 137 MA's), (6, 41404),

Gene: ChotaBhai_60 Start: 41387, Stop: 41665, Start Num: 4
Candidate Starts for ChotaBhai_60:
(1, 41291), (2, 41330), (Start: 4 @41387 has 137 MA's), (6, 41426),

Gene: Cjw1_60 Start: 42766, Stop: 43044, Start Num: 4
Candidate Starts for Cjw1_60:
(1, 42670), (2, 42709), (Start: 4 @42766 has 137 MA's), (6, 42805),

Gene: Command613_62 Start: 42104, Stop: 42382, Start Num: 4
Candidate Starts for Command613_62:
(1, 42008), (2, 42047), (Start: 4 @42104 has 137 MA's), (6, 42143),

Gene: Contagion_57 Start: 40866, Stop: 41144, Start Num: 4
Candidate Starts for Contagion_57:
(1, 40770), (2, 40809), (Start: 4 @40866 has 137 MA's), (6, 40905),

Gene: Cookies_57 Start: 41237, Stop: 41515, Start Num: 4

Candidate Starts for Cookies_57:

(1, 41141), (2, 41180), (Start: 4 @41237 has 137 MA's), (6, 41276),

Gene: CrystalP_60 Start: 42346, Stop: 42624, Start Num: 4

Candidate Starts for CrystalP_60:

(1, 42250), (2, 42289), (Start: 4 @42346 has 137 MA's), (6, 42385),

Gene: Czyszczone1_61 Start: 41575, Stop: 41853, Start Num: 4

Candidate Starts for Czyszczone1_61:

(1, 41479), (2, 41518), (Start: 4 @41575 has 137 MA's), (6, 41614),

Gene: Daikon_62 Start: 42196, Stop: 42474, Start Num: 4

Candidate Starts for Daikon_62:

(1, 42100), (2, 42139), (Start: 4 @42196 has 137 MA's), (6, 42235),

Gene: DoctorDiddles_60 Start: 41423, Stop: 41701, Start Num: 4

Candidate Starts for DoctorDiddles_60:

(1, 41327), (2, 41366), (Start: 4 @41423 has 137 MA's), (6, 41462),

Gene: DrDrey_59 Start: 42494, Stop: 42772, Start Num: 4

Candidate Starts for DrDrey_59:

(1, 42398), (2, 42437), (Start: 4 @42494 has 137 MA's), (6, 42533),

Gene: Dumbo_60 Start: 41270, Stop: 41548, Start Num: 4

Candidate Starts for Dumbo_60:

(1, 41174), (2, 41213), (Start: 4 @41270 has 137 MA's), (6, 41309),

Gene: Dusk_57 Start: 41567, Stop: 41845, Start Num: 4

Candidate Starts for Dusk_57:

(1, 41471), (2, 41510), (Start: 4 @41567 has 137 MA's), (6, 41606),

Gene: Easy2Say_61 Start: 42808, Stop: 43086, Start Num: 4

Candidate Starts for Easy2Say_61:

(1, 42712), (2, 42751), (Start: 4 @42808 has 137 MA's), (6, 42847),

Gene: Elite2014_60 Start: 41364, Stop: 41642, Start Num: 4

Candidate Starts for Elite2014_60:

(1, 41268), (2, 41307), (Start: 4 @41364 has 137 MA's), (6, 41403),

Gene: Elph10_60 Start: 41073, Stop: 41351, Start Num: 4

Candidate Starts for Elph10_60:

(1, 40977), (2, 41016), (Start: 4 @41073 has 137 MA's), (6, 41112),

Gene: Emmina_60 Start: 41271, Stop: 41549, Start Num: 4

Candidate Starts for Emmina_60:

(1, 41175), (2, 41214), (Start: 4 @41271 has 137 MA's), (6, 41310),

Gene: Eureka_58 Start: 41835, Stop: 42113, Start Num: 4

Candidate Starts for Eureka_58:

(1, 41739), (2, 41778), (Start: 4 @41835 has 137 MA's), (6, 41874),

Gene: FairyPath_60 Start: 42187, Stop: 42465, Start Num: 4

Candidate Starts for FairyPath_60:

(1, 42091), (2, 42130), (Start: 4 @42187 has 137 MA's), (6, 42226),

Gene: Filch_61 Start: 41296, Stop: 41574, Start Num: 4

Candidate Starts for Filch_61:

(1, 41200), (2, 41239), (Start: 4 @41296 has 137 MA's), (6, 41335),

Gene: FireRed_63 Start: 42562, Stop: 42840, Start Num: 4

Candidate Starts for FireRed_63:

(1, 42466), (2, 42505), (Start: 4 @42562 has 137 MA's), (6, 42601),

Gene: Flypotenuse_55 Start: 41059, Stop: 41337, Start Num: 4

Candidate Starts for Flypotenuse_55:

(1, 40963), (2, 41002), (Start: 4 @41059 has 137 MA's), (6, 41098),

Gene: FoghornLeghorn_55 Start: 40069, Stop: 40347, Start Num: 4

Candidate Starts for FoghornLeghorn_55:

(1, 39973), (2, 40012), (Start: 4 @40069 has 137 MA's), (6, 40108),

Gene: Gage_62 Start: 41844, Stop: 42122, Start Num: 4

Candidate Starts for Gage_62:

(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Gator_58 Start: 42198, Stop: 42476, Start Num: 4

Candidate Starts for Gator_58:

(1, 42102), (2, 42141), (Start: 4 @42198 has 137 MA's), (6, 42237),

Gene: Gemini_64 Start: 42361, Stop: 42639, Start Num: 4

Candidate Starts for Gemini_64:

(1, 42265), (2, 42304), (Start: 4 @42361 has 137 MA's), (6, 42400),

Gene: Glexan_58 Start: 42186, Stop: 42464, Start Num: 4

Candidate Starts for Glexan_58:

(1, 42090), (2, 42129), (Start: 4 @42186 has 137 MA's), (6, 42225),

Gene: Goku_58 Start: 41564, Stop: 41842, Start Num: 4

Candidate Starts for Goku_58:

(1, 41468), (2, 41507), (Start: 4 @41564 has 137 MA's), (6, 41603),

Gene: GoldenSpark_63 Start: 41844, Stop: 42122, Start Num: 4

Candidate Starts for GoldenSpark_63:

(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Goldilocks_62 Start: 41346, Stop: 41624, Start Num: 4

Candidate Starts for Goldilocks_62:

(1, 41250), (2, 41289), (Start: 4 @41346 has 137 MA's), (6, 41385),

Gene: GooberAzure_63 Start: 41844, Stop: 42122, Start Num: 4

Candidate Starts for GooberAzure_63:

(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Greep_64 Start: 42854, Stop: 43132, Start Num: 4

Candidate Starts for Greep_64:

(1, 42758), (2, 42797), (Start: 4 @42854 has 137 MA's), (6, 42893),

Gene: HanKaySha_59 Start: 41154, Stop: 41432, Start Num: 4
Candidate Starts for HanKaySha_59:
(1, 41058), (2, 41097), (Start: 4 @41154 has 137 MA's), (6, 41193),

Gene: Harella_60 Start: 42702, Stop: 42980, Start Num: 4
Candidate Starts for Harella_60:
(1, 42606), (2, 42645), (Start: 4 @42702 has 137 MA's), (6, 42741),

Gene: Henry_59 Start: 41786, Stop: 42064, Start Num: 4
Candidate Starts for Henry_59:
(1, 41690), (2, 41729), (Start: 4 @41786 has 137 MA's), (6, 41825),

Gene: Highbury_61 Start: 41437, Stop: 41715, Start Num: 4
Candidate Starts for Highbury_61:
(1, 41341), (2, 41380), (Start: 4 @41437 has 137 MA's), (6, 41476),

Gene: Holt_65 Start: 42258, Stop: 42536, Start Num: 4
Candidate Starts for Holt_65:
(1, 42162), (2, 42201), (Start: 4 @42258 has 137 MA's), (6, 42297),

Gene: Hoonter_63 Start: 41844, Stop: 42122, Start Num: 4
Candidate Starts for Hoonter_63:
(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Hokey_60 Start: 41688, Stop: 41966, Start Num: 4
Candidate Starts for Hokey_60:
(1, 41592), (2, 41631), (Start: 4 @41688 has 137 MA's), (6, 41727),

Gene: HufflyPuff_62 Start: 42518, Stop: 42796, Start Num: 4
Candidate Starts for HufflyPuff_62:
(1, 42422), (2, 42461), (Start: 4 @42518 has 137 MA's), (6, 42557),

Gene: IHOP_58 Start: 41910, Stop: 42188, Start Num: 4
Candidate Starts for IHOP_58:
(1, 41814), (2, 41853), (Start: 4 @41910 has 137 MA's), (6, 41949),

Gene: Icee_60 Start: 41512, Stop: 41790, Start Num: 4
Candidate Starts for Icee_60:
(1, 41416), (2, 41455), (Start: 4 @41512 has 137 MA's), (6, 41551),

Gene: Inca_57 Start: 40435, Stop: 40713, Start Num: 4
Candidate Starts for Inca_57:
(1, 40339), (2, 40378), (Start: 4 @40435 has 137 MA's), (6, 40474),

Gene: JeTaime_60 Start: 42338, Stop: 42616, Start Num: 4
Candidate Starts for JeTaime_60:
(1, 42242), (2, 42281), (Start: 4 @42338 has 137 MA's), (6, 42377),

Gene: Kanye_56 Start: 41198, Stop: 41476, Start Num: 4
Candidate Starts for Kanye_56:
(1, 41102), (2, 41141), (Start: 4 @41198 has 137 MA's), (6, 41237),

Gene: Kimchi_63 Start: 41847, Stop: 42125, Start Num: 4
Candidate Starts for Kimchi_63:
(1, 41751), (2, 41790), (Start: 4 @41847 has 137 MA's), (6, 41886),

Gene: Kostya_61 Start: 42009, Stop: 42287, Start Num: 4
Candidate Starts for Kostya_61:
(1, 41913), (2, 41952), (Start: 4 @42009 has 137 MA's), (6, 42048),

Gene: Lilac_62 Start: 41473, Stop: 41751, Start Num: 4
Candidate Starts for Lilac_62:
(1, 41377), (2, 41416), (Start: 4 @41473 has 137 MA's), (6, 41512),

Gene: Lilizi_60 Start: 41147, Stop: 41425, Start Num: 4
Candidate Starts for Lilizi_60:
(1, 41051), (2, 41090), (Start: 4 @41147 has 137 MA's), (6, 41186),

Gene: Lilpickle_60 Start: 41364, Stop: 41642, Start Num: 4
Candidate Starts for Lilpickle_60:
(1, 41268), (2, 41307), (Start: 4 @41364 has 137 MA's), (6, 41403),

Gene: Liveloughbron_63 Start: 42649, Stop: 42927, Start Num: 4
Candidate Starts for Liveloughbron_63:
(1, 42553), (2, 42592), (Start: 4 @42649 has 137 MA's), (6, 42688),

Gene: MISSy_60 Start: 41571, Stop: 41849, Start Num: 4
Candidate Starts for MISSy_60:
(1, 41475), (2, 41514), (Start: 4 @41571 has 137 MA's), (6, 41610),

Gene: MPhalcon_60 Start: 41564, Stop: 41842, Start Num: 4
Candidate Starts for MPhalcon_60:
(1, 41468), (2, 41507), (Start: 4 @41564 has 137 MA's), (6, 41603),

Gene: MadamMonkfish_60 Start: 41088, Stop: 41366, Start Num: 4
Candidate Starts for MadamMonkfish_60:
(1, 40992), (2, 41031), (Start: 4 @41088 has 137 MA's), (6, 41127),

Gene: Manda_60 Start: 42369, Stop: 42647, Start Num: 4
Candidate Starts for Manda_60:
(1, 42273), (2, 42312), (Start: 4 @42369 has 137 MA's), (6, 42408),

Gene: Marshmallow_59 Start: 42344, Stop: 42622, Start Num: 4
Candidate Starts for Marshmallow_59:
(1, 42248), (2, 42287), (Start: 4 @42344 has 137 MA's), (6, 42383),

Gene: Maxxinista_63 Start: 41443, Stop: 41721, Start Num: 4
Candidate Starts for Maxxinista_63:
(1, 41347), (2, 41386), (Start: 4 @41443 has 137 MA's), (6, 41482),

Gene: Mindy_59 Start: 40952, Stop: 41230, Start Num: 4
Candidate Starts for Mindy_59:
(1, 40856), (2, 40895), (Start: 4 @40952 has 137 MA's), (6, 40991),

Gene: Miniwave_56 Start: 41405, Stop: 41683, Start Num: 4

Candidate Starts for Miniwave_56:

(1, 41309), (2, 41348), (Start: 4 @41405 has 137 MA's), (6, 41444),

Gene: Misfit_62 Start: 42583, Stop: 42861, Start Num: 4

Candidate Starts for Misfit_62:

(1, 42487), (2, 42526), (Start: 4 @42583 has 137 MA's), (6, 42622),

Gene: Moldemort_63 Start: 41961, Stop: 42239, Start Num: 4

Candidate Starts for Moldemort_63:

(1, 41865), (2, 41904), (Start: 4 @41961 has 137 MA's), (6, 42000),

Gene: MollyToe_55 Start: 40412, Stop: 40690, Start Num: 4

Candidate Starts for MollyToe_55:

(1, 40316), (2, 40355), (Start: 4 @40412 has 137 MA's), (6, 40451),

Gene: Mosby_56 Start: 40866, Stop: 41144, Start Num: 4

Candidate Starts for Mosby_56:

(1, 40770), (2, 40809), (Start: 4 @40866 has 137 MA's), (6, 40905),

Gene: Murica_62 Start: 42518, Stop: 42796, Start Num: 4

Candidate Starts for Murica_62:

(1, 42422), (2, 42461), (Start: 4 @42518 has 137 MA's), (6, 42557),

Gene: Murphy_62 Start: 41955, Stop: 42233, Start Num: 4

Candidate Starts for Murphy_62:

(1, 41859), (2, 41898), (Start: 4 @41955 has 137 MA's), (6, 41994),

Gene: Myrale_60 Start: 42209, Stop: 42487, Start Num: 4

Candidate Starts for Myrale_60:

(1, 42113), (2, 42152), (Start: 4 @42209 has 137 MA's), (6, 42248),

Gene: Nala_61 Start: 42076, Stop: 42354, Start Num: 4

Candidate Starts for Nala_61:

(1, 41980), (2, 42019), (Start: 4 @42076 has 137 MA's), (6, 42115),

Gene: NelitzaMV_57 Start: 41153, Stop: 41431, Start Num: 4

Candidate Starts for NelitzaMV_57:

(1, 41057), (2, 41096), (Start: 4 @41153 has 137 MA's), (6, 41192),

Gene: Nimrod_62 Start: 42776, Stop: 43054, Start Num: 4

Candidate Starts for Nimrod_62:

(1, 42680), (2, 42719), (Start: 4 @42776 has 137 MA's), (6, 42815),

Gene: NoSleep_62 Start: 41709, Stop: 41987, Start Num: 4

Candidate Starts for NoSleep_62:

(1, 41613), (2, 41652), (Start: 4 @41709 has 137 MA's), (6, 41748),

Gene: NonchalantPear_61 Start: 41559, Stop: 41837, Start Num: 4

Candidate Starts for NonchalantPear_61:

(1, 41463), (2, 41502), (Start: 4 @41559 has 137 MA's), (6, 41598),

Gene: OrionPax_59 Start: 41160, Stop: 41438, Start Num: 4

Candidate Starts for OrionPax_59:

(1, 41064), (2, 41103), (Start: 4 @41160 has 137 MA's), (6, 41199),

Gene: PaddyBaddy_60 Start: 41167, Stop: 41445, Start Num: 4

Candidate Starts for PaddyBaddy_60:

(1, 41071), (2, 41110), (Start: 4 @41167 has 137 MA's), (6, 41206),

Gene: Palpatine_63 Start: 42548, Stop: 42826, Start Num: 4

Candidate Starts for Palpatine_63:

(1, 42452), (2, 42491), (Start: 4 @42548 has 137 MA's), (6, 42587),

Gene: Paperbeatsrock_59 Start: 42083, Stop: 42361, Start Num: 4

Candidate Starts for Paperbeatsrock_59:

(1, 41987), (2, 42026), (Start: 4 @42083 has 137 MA's), (6, 42122),

Gene: Pat3_58 Start: 40313, Stop: 40591, Start Num: 4

Candidate Starts for Pat3_58:

(1, 40217), (2, 40256), (Start: 4 @40313 has 137 MA's), (6, 40352),

Gene: Petra64142_65 Start: 43012, Stop: 43290, Start Num: 4

Candidate Starts for Petra64142_65:

(1, 42916), (2, 42955), (Start: 4 @43012 has 137 MA's), (6, 43051),

Gene: Phaja_58 Start: 41909, Stop: 42187, Start Num: 4

Candidate Starts for Phaja_58:

(1, 41813), (2, 41852), (Start: 4 @41909 has 137 MA's), (6, 41948),

Gene: Pharsalus_58 Start: 41883, Stop: 42161, Start Num: 4

Candidate Starts for Pharsalus_58:

(1, 41787), (2, 41826), (Start: 4 @41883 has 137 MA's), (6, 41922),

Gene: PhatBacter_63 Start: 42562, Stop: 42840, Start Num: 4

Candidate Starts for PhatBacter_63:

(1, 42466), (2, 42505), (Start: 4 @42562 has 137 MA's), (6, 42601),

Gene: Phaux_62 Start: 42560, Stop: 42838, Start Num: 4

Candidate Starts for Phaux_62:

(1, 42464), (2, 42503), (Start: 4 @42560 has 137 MA's), (6, 42599),

Gene: Phrux_58 Start: 41153, Stop: 41431, Start Num: 4

Candidate Starts for Phrux_58:

(1, 41057), (2, 41096), (Start: 4 @41153 has 137 MA's), (6, 41192),

Gene: Policronamos_63 Start: 42560, Stop: 42838, Start Num: 4

Candidate Starts for Policronamos_63:

(1, 42464), (2, 42503), (Start: 4 @42560 has 137 MA's), (6, 42599),

Gene: Porky_59 Start: 41279, Stop: 41557, Start Num: 4

Candidate Starts for Porky_59:

(1, 41183), (2, 41222), (Start: 4 @41279 has 137 MA's), (6, 41318),

Gene: Ptowny_58 Start: 40745, Stop: 41023, Start Num: 4

Candidate Starts for Ptowny_58:

(1, 40649), (2, 40688), (Start: 4 @40745 has 137 MA's), (6, 40784),

Gene: Pumpkin_62 Start: 42210, Stop: 42488, Start Num: 4
Candidate Starts for Pumpkin_62:
(1, 42114), (2, 42153), (Start: 4 @42210 has 137 MA's), (6, 42249),

Gene: Quallification_61 Start: 42198, Stop: 42476, Start Num: 4
Candidate Starts for Quallification_61:
(1, 42102), (2, 42141), (Start: 4 @42198 has 137 MA's), (6, 42237),

Gene: Rakim_62 Start: 41960, Stop: 42238, Start Num: 4
Candidate Starts for Rakim_62:
(1, 41864), (2, 41903), (Start: 4 @41960 has 137 MA's), (6, 41999),

Gene: Rimmer_61 Start: 41902, Stop: 42180, Start Num: 4
Candidate Starts for Rimmer_61:
(1, 41806), (2, 41845), (Start: 4 @41902 has 137 MA's), (6, 41941),

Gene: RiverMonster_61 Start: 41731, Stop: 42009, Start Num: 4
Candidate Starts for RiverMonster_61:
(1, 41635), (2, 41674), (Start: 4 @41731 has 137 MA's), (6, 41770),

Gene: Saints25_61 Start: 41437, Stop: 41715, Start Num: 4
Candidate Starts for Saints25_61:
(1, 41341), (2, 41380), (Start: 4 @41437 has 137 MA's), (6, 41476),

Gene: Sassay_54 Start: 39830, Stop: 40108, Start Num: 4
Candidate Starts for Sassay_54:
(1, 39734), (2, 39773), (Start: 4 @39830 has 137 MA's), (6, 39869),

Gene: ShamWow_60 Start: 42346, Stop: 42624, Start Num: 4
Candidate Starts for ShamWow_60:
(1, 42250), (2, 42289), (Start: 4 @42346 has 137 MA's), (6, 42385),

Gene: ShereKhan_58 Start: 42122, Stop: 42400, Start Num: 4
Candidate Starts for ShereKhan_58:
(1, 42026), (2, 42065), (Start: 4 @42122 has 137 MA's), (6, 42161),

Gene: Simpliphy_59 Start: 41427, Stop: 41705, Start Num: 4
Candidate Starts for Simpliphy_59:
(1, 41331), (2, 41370), (Start: 4 @41427 has 137 MA's), (6, 41466),

Gene: SirDuracell_59 Start: 40403, Stop: 40681, Start Num: 4
Candidate Starts for SirDuracell_59:
(1, 40307), (2, 40346), (Start: 4 @40403 has 137 MA's), (6, 40442),

Gene: SophKB_57 Start: 41102, Stop: 41380, Start Num: 4
Candidate Starts for SophKB_57:
(1, 41006), (2, 41045), (Start: 4 @41102 has 137 MA's), (6, 41141),

Gene: Sotrice96_61 Start: 41808, Stop: 42086, Start Num: 4
Candidate Starts for Sotrice96_61:
(1, 41712), (2, 41751), (Start: 4 @41808 has 137 MA's), (6, 41847),

Gene: Stank_64 Start: 42360, Stop: 42638, Start Num: 4

Candidate Starts for Stank_64:

(1, 42264), (2, 42303), (Start: 4 @42360 has 137 MA's), (6, 42399),

Gene: Stark_61 Start: 41615, Stop: 41893, Start Num: 4

Candidate Starts for Stark_61:

(1, 41519), (2, 41558), (Start: 4 @41615 has 137 MA's), (6, 41654),

Gene: StellaBean_58 Start: 41670, Stop: 41948, Start Num: 4

Candidate Starts for StellaBean_58:

(1, 41574), (2, 41613), (Start: 4 @41670 has 137 MA's), (6, 41709),

Gene: Stellammi_90 Start: 46404, Stop: 46676, Start Num: 4

Candidate Starts for Stellammi_90:

(Start: 4 @46404 has 137 MA's), (7, 46452), (8, 46461), (14, 46533), (15, 46536), (16, 46539), (17, 46560), (21, 46644),

Gene: Stellammi_68 Start: 40078, Stop: 40347, Start Num: 4

Candidate Starts for Stellammi_68:

(3, 40057), (Start: 4 @40078 has 137 MA's), (5, 40093), (9, 40144), (10, 40171), (11, 40177), (13, 40201), (20, 40264),

Gene: StolenFromERC_63 Start: 41844, Stop: 42122, Start Num: 4

Candidate Starts for StolenFromERC_63:

(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: StormChicken_62 Start: 42510, Stop: 42788, Start Num: 4

Candidate Starts for StormChicken_62:

(1, 42414), (2, 42453), (Start: 4 @42510 has 137 MA's), (6, 42549),

Gene: TBrady12_63 Start: 41844, Stop: 42122, Start Num: 4

Candidate Starts for TBrady12_63:

(1, 41748), (2, 41787), (Start: 4 @41844 has 137 MA's), (6, 41883),

Gene: Tarkin_59 Start: 42092, Stop: 42370, Start Num: 4

Candidate Starts for Tarkin_59:

(1, 41996), (2, 42035), (Start: 4 @42092 has 137 MA's), (6, 42131),

Gene: TeamEdward_63 Start: 42507, Stop: 42785, Start Num: 4

Candidate Starts for TeamEdward_63:

(1, 42411), (2, 42450), (Start: 4 @42507 has 137 MA's), (6, 42546),

Gene: TeardropMSU_56 Start: 41092, Stop: 41370, Start Num: 4

Candidate Starts for TeardropMSU_56:

(1, 40996), (2, 41035), (Start: 4 @41092 has 137 MA's), (6, 41131),

Gene: Teaspoon_61 Start: 41986, Stop: 42264, Start Num: 4

Candidate Starts for Teaspoon_61:

(1, 41890), (2, 41929), (Start: 4 @41986 has 137 MA's), (6, 42025),

Gene: Terminus_62 Start: 42583, Stop: 42861, Start Num: 4

Candidate Starts for Terminus_62:

(1, 42487), (2, 42526), (Start: 4 @42583 has 137 MA's), (6, 42622),

Gene: Thimble_61 Start: 41026, Stop: 41304, Start Num: 4
Candidate Starts for Thimble_61:
(1, 40930), (2, 40969), (Start: 4 @41026 has 137 MA's), (6, 41065),

Gene: Thresher_63 Start: 42969, Stop: 43247, Start Num: 4
Candidate Starts for Thresher_63:
(1, 42873), (2, 42912), (Start: 4 @42969 has 137 MA's), (6, 43008),

Gene: Tomaszewski_55 Start: 40965, Stop: 41243, Start Num: 4
Candidate Starts for Tomaszewski_55:
(1, 40869), (2, 40908), (Start: 4 @40965 has 137 MA's), (6, 41004),

Gene: Toto_59 Start: 42346, Stop: 42624, Start Num: 4
Candidate Starts for Toto_59:
(1, 42250), (2, 42289), (Start: 4 @42346 has 137 MA's), (6, 42385),

Gene: Traaww1_56 Start: 41527, Stop: 41805, Start Num: 4
Candidate Starts for Traaww1_56:
(1, 41431), (2, 41470), (Start: 4 @41527 has 137 MA's), (6, 41566),

Gene: Tuco_61 Start: 42854, Stop: 43132, Start Num: 4
Candidate Starts for Tuco_61:
(1, 42758), (2, 42797), (Start: 4 @42854 has 137 MA's), (6, 42893),

Gene: Ukulele_57 Start: 41240, Stop: 41518, Start Num: 4
Candidate Starts for Ukulele_57:
(1, 41144), (2, 41183), (Start: 4 @41240 has 137 MA's), (6, 41279),

Gene: Wiggin_62 Start: 41928, Stop: 42206, Start Num: 4
Candidate Starts for Wiggin_62:
(1, 41832), (2, 41871), (Start: 4 @41928 has 137 MA's), (6, 41967),

Gene: Willez_54 Start: 39830, Stop: 40108, Start Num: 4
Candidate Starts for Willez_54:
(1, 39734), (2, 39773), (Start: 4 @39830 has 137 MA's), (6, 39869),

Gene: Xandras_60 Start: 41339, Stop: 41617, Start Num: 4
Candidate Starts for Xandras_60:
(1, 41243), (2, 41282), (Start: 4 @41339 has 137 MA's), (6, 41378),

Gene: YassJohnny_56 Start: 41005, Stop: 41283, Start Num: 4
Candidate Starts for YassJohnny_56:
(1, 40909), (2, 40948), (Start: 4 @41005 has 137 MA's), (6, 41044),

Gene: Youngblood_62 Start: 42513, Stop: 42791, Start Num: 4
Candidate Starts for Youngblood_62:
(1, 42417), (2, 42456), (Start: 4 @42513 has 137 MA's), (6, 42552),

Gene: xkcd_64 Start: 42703, Stop: 42981, Start Num: 4
Candidate Starts for xkcd_64:
(1, 42607), (2, 42646), (Start: 4 @42703 has 137 MA's), (6, 42742),