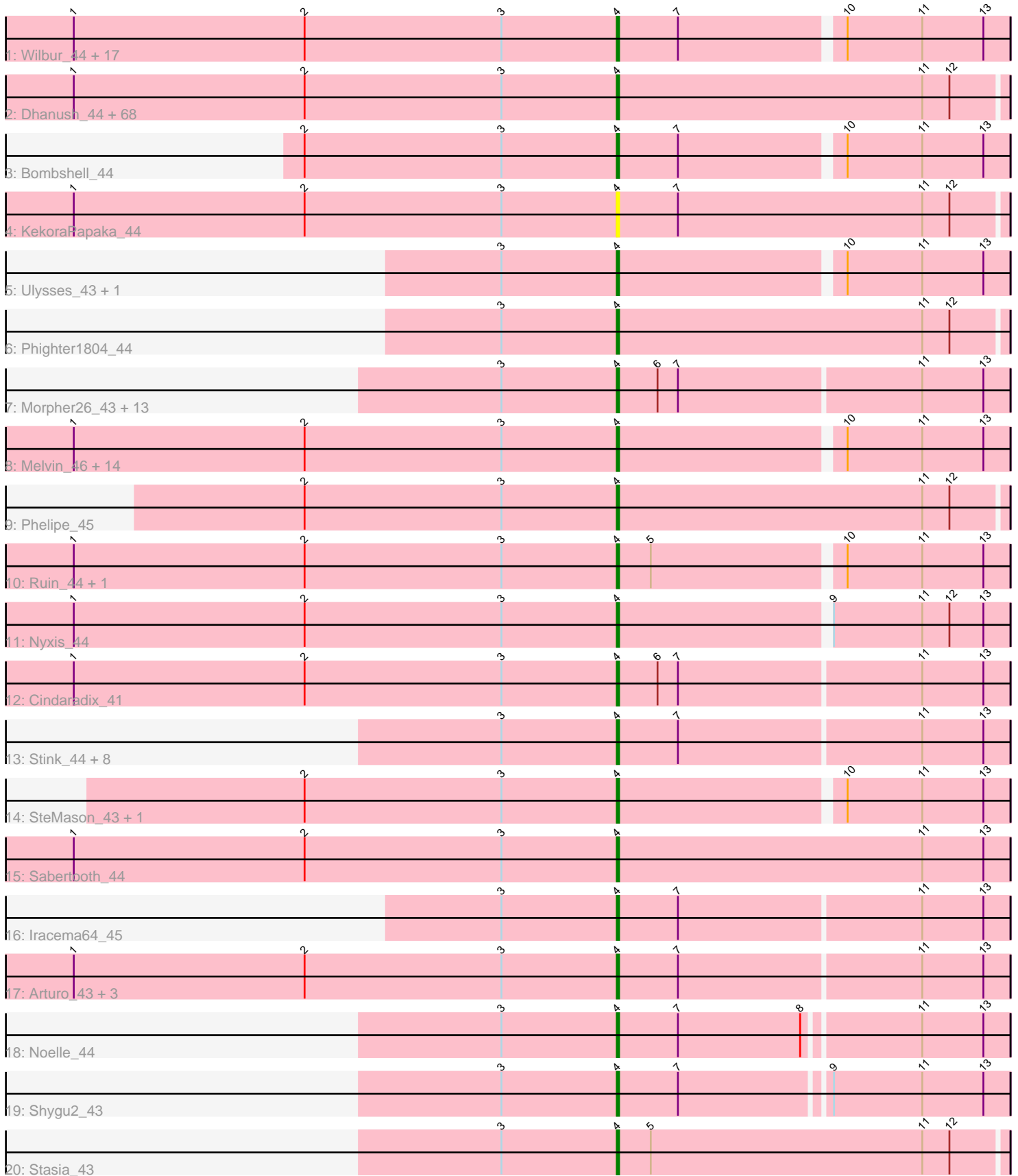


Pham 301143



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 301143 Report

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

Pham number 301143 has 146 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Wilbur_44, Avle17_44, Relief_43, Jaykayelowell_42, JoongJeon_43, JetBlade_44, Kremtemulon_44, KFPoly_43, Wander_44, Romney_44, Lunsford_45, Iceman_44, Shaka_44, Eapen_44, Kingmustik0402_44, Phontbonne_44, LittleGuy_44, PeterPeter_44
- Track 2 : Dhanush_44, Pipcraft_42, Albee_44, Nebs_45, NotAPhaseMom_44, Sultana_44, Mazhar510_44, CentreCat_44, Mayonnaise_43, TygerBlood_44, HamSlice_43, Maxo_45, Lemur_44, TroyPia_45, Caelakin_44, RockieBear_43, LittleB_44, SenorClean_44, Morrow_45, BellusTerra_45, Medusa_44, Bruiser_43, Connomayer_44, Phacado_44, Blackmoor_44, Scamp_44, Clarenza_43, Wizard007_44, Camperdownii_42, LeoAvram_44, Houdini22_44, Bartimeaus_44, Ohfah_45, Chaph_44, Peaches_44, Koan_42, Burger_42, Eagle_44, Druantia_44, NorthStar_43, Eros_44, Sparxx_45, Holli_43, Deano_43, Citius_44, Baby16_44, LappelDuVide_44, BubbleTrouble_43, Huxley_43, LochMonster_45, Eris_43, Maverick_44, Kyee_44, TinaFeyge_44, Kampy_44, Gadost_44, Abdiel_44, Broseidon_44, Funston_43, Commander_44, Koreni_43, Lorenzo_44, Polymorphads_45, Florean_44, Cocoaberry_44, Roosevelt_43, Nemo27_44, Taquarus_44, Spino_43
- Track 3 : Bombshell_44
- Track 4 : KekoraPapaka_44
- Track 5 : Ulysses_43, Alberto7_45
- Track 6 : Phighter1804_44
- Track 7 : Morpher26_43, Cici_43, Xena_42, Datway_43, Bumblebee11_42, AbbysRanger_43, Mundrea_43, Backyardigan_42, Achebe_42, Wile_43, Badger_42, PetiteSangsue_43, Katalie136_43, Perplexer_43
- Track 8 : Melvin_46, Rosa24_43, Millski_43, Cintron_43, Annyong_44, Eurydice_45, Thanksgivukkah_43, MeeZee_44, Tinybot_43, Flux_44, OKaNui_44, ICleared_44, Pumbaa_44, YoSam321_44, Skipitt_43
- Track 9 : Felipe_45
- Track 10 : Ruin_44, Palestino_43
- Track 11 : Nyxis_44
- Track 12 : Cindaradix_41
- Track 13 : Stink_44, BangNhom_45, Cerulean_45, SheldonCooper_46, Obama12_45, AvatarAhPeg_43, LHTSCC_46, ChampagnePapi_46, Miramae_43
- Track 14 : SteMason_43, TiroTheta9_44
- Track 15 : Sabertooth_44
- Track 16 : Iracema64_45
- Track 17 : Arturo_43, DirtyDunning_43, Happiness_43, Kratark_44

- Track 18 : Noelle_44
- Track 19 : Shygu2_43
- Track 20 : Stasia_43

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 142 of the 142 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_43, Abdiel_44, Achebe_42, Albee_44, Alberto7_45, Annyong_44, Arturo_43, AvatarAhPeg_43, Avle17_44, Baby16_44, Backyardigan_42, Badger_42, BangNhom_45, Bartimeaus_44, BellusTerra_45, Blackmoor_44, Bombshell_44, Broseidon_44, Bruiser_43, BubbleTrouble_43, Bumblebee11_42, Burger_42, Caelakin_44, Camperdownii_42, CentreCat_44, Cerulean_45, ChampagnePapi_46, Chaph_44, Cici_43, Cindaradix_41, Cintron_43, Citius_44, Clarenza_43, Cocoaberry_44, Commander_44, Connomayer_44, Datway_43, Deano_43, Dhanush_44, DirtyDunning_43, Druantia_44, Eagle_44, Eapen_44, Eris_43, Eros_44, Eurydice_45, Floean_44, Flux_44, Funston_43, Gadost_44, HamSlice_43, Happiness_43, Holli_43, Houdini22_44, Huxley_43, ICleared_44, Iceman_44, Iracema64_45, Jaykayelowell_42, JetBlade_44, JoongJeon_43, KFPoly_43, Kampy_44, Katalie136_43, KekoraPapaka_44, Kingmustik0402_44, Koan_42, Koreni_43, Kratark_44, Kremtemulon_44, Kyee_44, LHTSCC_46, LappelDuVide_44, Lemur_44, LeoAvram_44, LittleB_44, LittleGuy_44, LochMonster_45, Lorenzo_44, Lunsford_45, Maverick_44, Maxo_45, Mayonnaise_43, Mazhar510_44, Medusa_44, MeeZee_44, Melvin_46, Millski_43, Miramae_43, Morpher26_43, Morrow_45, Mundrea_43, Nebs_45, Nemo27_44, Noelle_44, NorthStar_43, NotAPhaseMom_44, Nyxis_44, OKaNui_44, Obama12_45, Ohfah_45, Palestino_43, Peaches_44, Perplexer_43, PeterPeter_44, PetiteSangsue_43, Phacado_44, Felipe_45, Phighter1804_44, Phontbonne_44, Pipcraft_42, Polymorphads_45, Pumbaa_44, Relief_43, RockieBear_43, Romney_44, Roosevelt_43, Rosa24_43, Ruin_44, Sabertooth_44, Scamp_44, SeniorClean_44, Shaka_44, SheldonCooper_46, Shygu2_43, Skipitt_43, Sparxx_45, Spino_43, Stasia_43, SteMason_43, Stink_44, Sultana_44, Taquarus_44, Thanksgivukkah_43, TinaFeyge_44, Tinybot_43, TiroTheta9_44, TroyPia_45, TygerBlood_44, Ulysses_43, Wander_44, Wilbur_44, Wile_43, Wizard007_44, Xena_42, YoSam321_44,

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 146 of 146 (100.0%) of genes in pham
- Manual Annotations of this start: 142 of 142
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AbbysRanger_43 (A4), Abdiel_44 (A4), Achebe_42 (A4), Albee_44 (A4), Alberto7_45 (A4), Annyong_44 (A4), Arturo_43 (A4), AvatarAhPeg_43 (A4), Avle17_44 (A4), Baby16_44 (A4), Backyardigan_42 (A4), Badger_42 (A4), BangNhom_45 (A4), Bartimeaus_44 (A4), BellusTerra_45 (A4), Blackmoor_44 (A4), Bombshell_44 (A4), Broseidon_44 (A4), Bruiser_43 (A4), BubbleTrouble_43 (A4), Bumblebee11_42 (A4), Burger_42 (A4), Caelakin_44 (A4), Camperdownii_42 (A4), CentreCat_44 (A4), Cerulean_45 (A4), ChampagnePapi_46 (A4), Chaph_44 (A4), Cici_43 (A4), Cindaradix_41 (A4), Cintron_43 (A4), Citius_44 (A4), Clarenza_43 (A4), Cocoaberry_44 (A4), Commander_44 (A4), Connomayer_44 (A4), Datway_43 (A4), Deano_43 (A4), Dhanush_44 (A4), DirtyDunning_43 (A4), Druantia_44 (A4), Eagle_44 (A4), Eapen_44 (A4), Eris_43 (A4), Eros_44 (A4), Eurydice_45 (A4), Florean_44 (A4), Flux_44 (A4), Funston_43 (A4), Gadost_44 (A4), HamSlice_43 (A4), Happiness_43 (A4), Holli_43 (A4), Houdini22_44 (A4), Huxley_43 (A4), ICleared_44 (A4), Iceman_44 (A4), Iracema64_45 (A4), Jaykayelowell_42 (A4), JetBlade_44 (A4), JoongJeon_43 (A4), KFPoly_43 (A4), Kamy_44 (A4), Katalie136_43 (A4), KekoraPapaka_44 (A4), Kingmustik0402_44 (A4), Koan_42 (A4), Koreni_43 (A4), Kratak_44 (A4), Kremtemulon_44 (A4), Kyee_44 (A4), LHTSCC_46 (A4), LappelDuVide_44 (A4), Lemur_44 (A4), LeoAvram_44 (A4), LittleB_44 (A4), LittleGuy_44 (A4), LochMonster_45 (A4), Lorenzo_44 (A4), Lunsford_45 (A4), Maverick_44 (A4), Maxo_45 (A4), Mayonnaise_43 (A4), Mazhar510_44 (A4), Medusa_44 (A4), MeeZee_44 (A4), Melvin_46 (A4), Millski_43 (A4), Miramae_43 (A4), Morpher26_43 (A4), Morrow_45 (A4), Mundrea_43 (A4), Nebs_45 (A4), Nemo27_44 (A4), Noelle_44 (A4), NorthStar_43 (A4), NotAPhaseMom_44 (A4), Nyxis_44 (A4), OKaNui_44 (A4), Obama12_45 (A4), Ohfah_45 (A4), Palestino_43 (A4), Peaches_44 (A4), Perplexer_43 (A4), PeterPeter_44 (A4), PetiteSangsue_43 (A4), Phacado_44 (A4), Phelipe_45 (A4), Phighter1804_44 (A4), Phontbonne_44 (A4), Pipcraft_42 (A4), Polymorphads_45 (A4), Pumbaa_44 (A4), Relief_43 (A4), RockieBear_43 (A4), Romney_44 (A4), Roosevelt_43 (A4), Rosa24_43 (A4), Ruin_44 (A4), Sabertooth_44 (A4), Scamp_44 (A4), SeniorClean_44 (A4), Shaka_44 (A4), SheldonCooper_46 (A4), Shygu2_43 (A4), Skipitt_43 (A4), Sparxx_45 (A4), Spino_43 (A4), Stasia_43 (A4), SteMason_43 (A4), Stink_44 (A4), Sultana_44 (A4), Taquarus_44 (A4), Thanksgivukkah_43 (A4), TinaFeyge_44 (A4), Tinybot_43 (A4), TiroTheta9_44 (A4), TroyPia_45 (A4), TygerBlood_44 (A4), Ulysses_43 (A4), Wander_44 (A4), Wilbur_44 (A4), Wile_43 (A4), Wizard007_44 (A4), Xena_42 (A4), YoSam321_44 (A4),

Summary by clusters:

There is one cluster represented in this pham: A4

Info for manual annotations of cluster A4:

- Start number 4 was manually annotated 142 times for cluster A4.

Gene Information:

Gene: AbbysRanger_43 Start: 29686, Stop: 29516, Start Num: 4

Candidate Starts for AbbysRanger_43:

(3, 29737), (Start: 4 @29686 has 142 MA's), (6, 29668), (7, 29659), (11, 29554), (13, 29527),

Gene: Abdiel_44 Start: 29724, Stop: 29554, Start Num: 4

Candidate Starts for Abdiel_44:

(1, 29964), (2, 29862), (3, 29775), (Start: 4 @29724 has 142 MA's), (11, 29589), (12, 29577),

Gene: Achebe_42 Start: 29669, Stop: 29499, Start Num: 4

Candidate Starts for Achebe_42:

(3, 29720), (Start: 4 @29669 has 142 MA's), (6, 29651), (7, 29642), (11, 29537), (13, 29510),

Gene: Albee_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Albee_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Alberto7_45 Start: 30060, Stop: 29893, Start Num: 4

Candidate Starts for Alberto7_45:

(3, 30111), (Start: 4 @30060 has 142 MA's), (10, 29964), (11, 29931), (13, 29904),

Gene: Annyong_44 Start: 29768, Stop: 29601, Start Num: 4

Candidate Starts for Annyong_44:

(1, 30008), (2, 29906), (3, 29819), (Start: 4 @29768 has 142 MA's), (10, 29672), (11, 29639), (13, 29612),

Gene: Arturo_43 Start: 29979, Stop: 29809, Start Num: 4

Candidate Starts for Arturo_43:

(1, 30219), (2, 30117), (3, 30030), (Start: 4 @29979 has 142 MA's), (7, 29952), (11, 29847), (13, 29820),

Gene: AvatarAhPeg_43 Start: 30198, Stop: 30028, Start Num: 4

Candidate Starts for AvatarAhPeg_43:

(3, 30249), (Start: 4 @30198 has 142 MA's), (7, 30171), (11, 30066), (13, 30039),

Gene: Avle17_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Avle17_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: Baby16_44 Start: 29734, Stop: 29564, Start Num: 4

Candidate Starts for Baby16_44:

(1, 29974), (2, 29872), (3, 29785), (Start: 4 @29734 has 142 MA's), (11, 29599), (12, 29587),

Gene: Backyardigan_42 Start: 29702, Stop: 29532, Start Num: 4

Candidate Starts for Backyardigan_42:

(3, 29753), (Start: 4 @29702 has 142 MA's), (6, 29684), (7, 29675), (11, 29570), (13, 29543),

Gene: Badger_42 Start: 29670, Stop: 29500, Start Num: 4

Candidate Starts for Badger_42:

(3, 29721), (Start: 4 @29670 has 142 MA's), (6, 29652), (7, 29643), (11, 29538), (13, 29511),

Gene: BangNhom_45 Start: 30145, Stop: 29975, Start Num: 4

Candidate Starts for BangNhom_45:

(3, 30196), (Start: 4 @30145 has 142 MA's), (7, 30118), (11, 30013), (13, 29986),

Gene: Bartimeaus_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Bartimeaus_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: BellusTerra_45 Start: 29724, Stop: 29554, Start Num: 4

Candidate Starts for BellusTerra_45:

(1, 29964), (2, 29862), (3, 29775), (Start: 4 @29724 has 142 MA's), (11, 29589), (12, 29577),

Gene: Blackmoor_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Blackmoor_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Bombshell_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Bombshell_44:

(2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: Broseidon_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Broseidon_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Bruiser_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Bruiser_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: BubbleTrouble_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for BubbleTrouble_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Bumblebee11_42 Start: 29672, Stop: 29502, Start Num: 4

Candidate Starts for Bumblebee11_42:

(3, 29723), (Start: 4 @29672 has 142 MA's), (6, 29654), (7, 29645), (11, 29540), (13, 29513),

Gene: Burger_42 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Burger_42:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Caelakin_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Caelakin_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Camperdownii_42 Start: 29396, Stop: 29226, Start Num: 4

Candidate Starts for Camperdownii_42:

(1, 29636), (2, 29534), (3, 29447), (Start: 4 @29396 has 142 MA's), (11, 29261), (12, 29249),

Gene: CentreCat_44 Start: 29726, Stop: 29556, Start Num: 4

Candidate Starts for CentreCat_44:

(1, 29966), (2, 29864), (3, 29777), (Start: 4 @29726 has 142 MA's), (11, 29591), (12, 29579),

Gene: Cerulean_45 Start: 30146, Stop: 29976, Start Num: 4

Candidate Starts for Cerulean_45:

(3, 30197), (Start: 4 @30146 has 142 MA's), (7, 30119), (11, 30014), (13, 29987),

Gene: ChampagnePapi_46 Start: 30145, Stop: 29975, Start Num: 4

Candidate Starts for ChampagnePapi_46:

(3, 30196), (Start: 4 @30145 has 142 MA's), (7, 30118), (11, 30013), (13, 29986),

Gene: Chaph_44 Start: 29734, Stop: 29564, Start Num: 4

Candidate Starts for Chaph_44:

(1, 29974), (2, 29872), (3, 29785), (Start: 4 @29734 has 142 MA's), (11, 29599), (12, 29587),

Gene: Cici_43 Start: 29687, Stop: 29517, Start Num: 4

Candidate Starts for Cici_43:

(3, 29738), (Start: 4 @29687 has 142 MA's), (6, 29669), (7, 29660), (11, 29555), (13, 29528),

Gene: Cindaradix_41 Start: 29312, Stop: 29142, Start Num: 4

Candidate Starts for Cindaradix_41:

(1, 29552), (2, 29450), (3, 29363), (Start: 4 @29312 has 142 MA's), (6, 29294), (7, 29285), (11, 29180), (13, 29153),

Gene: Cintron_43 Start: 29703, Stop: 29536, Start Num: 4

Candidate Starts for Cintron_43:

(1, 29943), (2, 29841), (3, 29754), (Start: 4 @29703 has 142 MA's), (10, 29607), (11, 29574), (13, 29547),

Gene: Citius_44 Start: 29744, Stop: 29574, Start Num: 4

Candidate Starts for Citius_44:

(1, 29984), (2, 29882), (3, 29795), (Start: 4 @29744 has 142 MA's), (11, 29609), (12, 29597),

Gene: Clarenza_43 Start: 29720, Stop: 29550, Start Num: 4

Candidate Starts for Clarenza_43:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (11, 29585), (12, 29573),

Gene: Cocoaberry_44 Start: 29727, Stop: 29557, Start Num: 4

Candidate Starts for Cocoaberry_44:

(1, 29967), (2, 29865), (3, 29778), (Start: 4 @29727 has 142 MA's), (11, 29592), (12, 29580),

Gene: Commander_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Commander_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Connomayer_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Connomayer_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Datway_43 Start: 29658, Stop: 29488, Start Num: 4

Candidate Starts for Datway_43:

(3, 29709), (Start: 4 @29658 has 142 MA's), (6, 29640), (7, 29631), (11, 29526), (13, 29499),

Gene: Deano_43 Start: 29731, Stop: 29561, Start Num: 4

Candidate Starts for Deano_43:

(1, 29971), (2, 29869), (3, 29782), (Start: 4 @29731 has 142 MA's), (11, 29596), (12, 29584),

Gene: Dhanush_44 Start: 29726, Stop: 29556, Start Num: 4

Candidate Starts for Dhanush_44:

(1, 29966), (2, 29864), (3, 29777), (Start: 4 @29726 has 142 MA's), (11, 29591), (12, 29579),

Gene: DirtyDunning_43 Start: 29720, Stop: 29550, Start Num: 4

Candidate Starts for DirtyDunning_43:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (11, 29588), (13, 29561),

Gene: Druantia_44 Start: 29726, Stop: 29556, Start Num: 4

Candidate Starts for Druantia_44:

(1, 29966), (2, 29864), (3, 29777), (Start: 4 @29726 has 142 MA's), (11, 29591), (12, 29579),

Gene: Eagle_44 Start: 29748, Stop: 29578, Start Num: 4

Candidate Starts for Eagle_44:

(1, 29988), (2, 29886), (3, 29799), (Start: 4 @29748 has 142 MA's), (11, 29613), (12, 29601),

Gene: Eapen_44 Start: 29718, Stop: 29551, Start Num: 4

Candidate Starts for Eapen_44:

(1, 29958), (2, 29856), (3, 29769), (Start: 4 @29718 has 142 MA's), (7, 29691), (10, 29622), (11, 29589), (13, 29562),

Gene: Eris_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Eris_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Eros_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Eros_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Eurydice_45 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Eurydice_45:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (10, 29624), (11, 29591), (13, 29564),

Gene: Florean_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Florean_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Flux_44 Start: 29722, Stop: 29555, Start Num: 4

Candidate Starts for Flux_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (10, 29626), (11, 29593), (13, 29566),

Gene: Funston_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Funston_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Gadost_44 Start: 29727, Stop: 29557, Start Num: 4

Candidate Starts for Gadost_44:

(1, 29967), (2, 29865), (3, 29778), (Start: 4 @29727 has 142 MA's), (11, 29592), (12, 29580),

Gene: HamSlice_43 Start: 29721, Stop: 29551, Start Num: 4

Candidate Starts for HamSlice_43:

(1, 29961), (2, 29859), (3, 29772), (Start: 4 @29721 has 142 MA's), (11, 29586), (12, 29574),

Gene: Happiness_43 Start: 29728, Stop: 29558, Start Num: 4

Candidate Starts for Happiness_43:

(1, 29968), (2, 29866), (3, 29779), (Start: 4 @29728 has 142 MA's), (7, 29701), (11, 29596), (13, 29569),

Gene: Holli_43 Start: 29513, Stop: 29343, Start Num: 4

Candidate Starts for Holli_43:

(1, 29753), (2, 29651), (3, 29564), (Start: 4 @29513 has 142 MA's), (11, 29378), (12, 29366),

Gene: Houdini22_44 Start: 29727, Stop: 29557, Start Num: 4

Candidate Starts for Houdini22_44:

(1, 29967), (2, 29865), (3, 29778), (Start: 4 @29727 has 142 MA's), (11, 29592), (12, 29580),

Gene: Huxley_43 Start: 29784, Stop: 29614, Start Num: 4

Candidate Starts for Huxley_43:

(1, 30024), (2, 29922), (3, 29835), (Start: 4 @29784 has 142 MA's), (11, 29649), (12, 29637),

Gene: ICleared_44 Start: 29752, Stop: 29585, Start Num: 4

Candidate Starts for ICleared_44:

(1, 29992), (2, 29890), (3, 29803), (Start: 4 @29752 has 142 MA's), (10, 29656), (11, 29623), (13, 29596),

Gene: Iceman_44 Start: 30009, Stop: 29842, Start Num: 4

Candidate Starts for Iceman_44:

(1, 30249), (2, 30147), (3, 30060), (Start: 4 @30009 has 142 MA's), (7, 29982), (10, 29913), (11, 29880), (13, 29853),

Gene: Iracema64_45 Start: 29987, Stop: 29817, Start Num: 4

Candidate Starts for Iracema64_45:

(3, 30038), (Start: 4 @29987 has 142 MA's), (7, 29960), (11, 29855), (13, 29828),

Gene: Jaykayelowell_42 Start: 29716, Stop: 29549, Start Num: 4

Candidate Starts for Jaykayelowell_42:

(1, 29956), (2, 29854), (3, 29767), (Start: 4 @29716 has 142 MA's), (7, 29689), (10, 29620), (11, 29587), (13, 29560),

Gene: JetBlade_44 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for JetBlade_44:

(1, 29957), (2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (7, 29690), (10, 29621), (11, 29588), (13, 29561),

Gene: JoongJeon_43 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for JoongJeon_43:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: KFPoly_43 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for KFPoly_43:

(1, 29957), (2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (7, 29690), (10, 29621), (11, 29588), (13, 29561),

Gene: Kampy_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Kampy_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Katalie136_43 Start: 29672, Stop: 29502, Start Num: 4

Candidate Starts for Katalie136_43:

(3, 29723), (Start: 4 @29672 has 142 MA's), (6, 29654), (7, 29645), (11, 29540), (13, 29513),

Gene: KekoraPapaka_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for KekoraPapaka_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (7, 29696), (11, 29588), (12, 29576),

Gene: Kingmustik0402_44 Start: 29712, Stop: 29545, Start Num: 4

Candidate Starts for Kingmustik0402_44:

(1, 29952), (2, 29850), (3, 29763), (Start: 4 @29712 has 142 MA's), (7, 29685), (10, 29616), (11, 29583), (13, 29556),

Gene: Koan_42 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Koan_42:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Koreni_43 Start: 29404, Stop: 29234, Start Num: 4

Candidate Starts for Koreni_43:

(1, 29644), (2, 29542), (3, 29455), (Start: 4 @29404 has 142 MA's), (11, 29269), (12, 29257),

Gene: Kratak_44 Start: 29862, Stop: 29692, Start Num: 4

Candidate Starts for Kratak_44:

(1, 30102), (2, 30000), (3, 29913), (Start: 4 @29862 has 142 MA's), (7, 29835), (11, 29730), (13, 29703),

Gene: Kremtemulon_44 Start: 29674, Stop: 29507, Start Num: 4

Candidate Starts for Kremtemulon_44:

(1, 29914), (2, 29812), (3, 29725), (Start: 4 @29674 has 142 MA's), (7, 29647), (10, 29578), (11, 29545), (13, 29518),

Gene: Kyee_44 Start: 29721, Stop: 29551, Start Num: 4

Candidate Starts for Kyee_44:

(1, 29961), (2, 29859), (3, 29772), (Start: 4 @29721 has 142 MA's), (11, 29586), (12, 29574),

Gene: LHTSCC_46 Start: 30145, Stop: 29975, Start Num: 4

Candidate Starts for LHTSCC_46:

(3, 30196), (Start: 4 @30145 has 142 MA's), (7, 30118), (11, 30013), (13, 29986),

Gene: LappelDuVide_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for LappelDuVide_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Lemur_44 Start: 29720, Stop: 29550, Start Num: 4

Candidate Starts for Lemur_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (11, 29585), (12, 29573),

Gene: LeoAvram_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for LeoAvram_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: LittleB_44 Start: 29724, Stop: 29554, Start Num: 4

Candidate Starts for LittleB_44:

(1, 29964), (2, 29862), (3, 29775), (Start: 4 @29724 has 142 MA's), (11, 29589), (12, 29577),

Gene: LittleGuy_44 Start: 29619, Stop: 29452, Start Num: 4

Candidate Starts for LittleGuy_44:

(1, 29859), (2, 29757), (3, 29670), (Start: 4 @29619 has 142 MA's), (7, 29592), (10, 29523), (11, 29490), (13, 29463),

Gene: LochMonster_45 Start: 29959, Stop: 29789, Start Num: 4

Candidate Starts for LochMonster_45:

(1, 30199), (2, 30097), (3, 30010), (Start: 4 @29959 has 142 MA's), (11, 29824), (12, 29812),

Gene: Lorenzo_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Lorenzo_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Lunsford_45 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for Lunsford_45:

(1, 29957), (2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (7, 29690), (10, 29621), (11, 29588), (13, 29561),

Gene: Maverick_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Maverick_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Maxo_45 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Maxo_45:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Mayonnaise_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Mayonnaise_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Mazhar510_44 Start: 29724, Stop: 29554, Start Num: 4

Candidate Starts for Mazhar510_44:

(1, 29964), (2, 29862), (3, 29775), (Start: 4 @29724 has 142 MA's), (11, 29589), (12, 29577),

Gene: Medusa_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Medusa_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: MeeZee_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for MeeZee_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (10, 29624), (11, 29591), (13, 29564),

Gene: Melvin_46 Start: 29718, Stop: 29551, Start Num: 4

Candidate Starts for Melvin_46:

(1, 29958), (2, 29856), (3, 29769), (Start: 4 @29718 has 142 MA's), (10, 29622), (11, 29589), (13, 29562),

Gene: Millski_43 Start: 29724, Stop: 29557, Start Num: 4

Candidate Starts for Millski_43:

(1, 29964), (2, 29862), (3, 29775), (Start: 4 @29724 has 142 MA's), (10, 29628), (11, 29595), (13, 29568),

Gene: Miramae_43 Start: 29860, Stop: 29690, Start Num: 4

Candidate Starts for Miramae_43:

(3, 29911), (Start: 4 @29860 has 142 MA's), (7, 29833), (11, 29728), (13, 29701),

Gene: Morpher26_43 Start: 29693, Stop: 29523, Start Num: 4

Candidate Starts for Morpher26_43:

(3, 29744), (Start: 4 @29693 has 142 MA's), (6, 29675), (7, 29666), (11, 29561), (13, 29534),

Gene: Morrow_45 Start: 29729, Stop: 29559, Start Num: 4

Candidate Starts for Morrow_45:

(1, 29969), (2, 29867), (3, 29780), (Start: 4 @29729 has 142 MA's), (11, 29594), (12, 29582),

Gene: Mundrea_43 Start: 29680, Stop: 29510, Start Num: 4

Candidate Starts for Mundrea_43:

(3, 29731), (Start: 4 @29680 has 142 MA's), (6, 29662), (7, 29653), (11, 29548), (13, 29521),

Gene: Nebs_45 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Nebs_45:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Nemo27_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Nemo27_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Noelle_44 Start: 29982, Stop: 29815, Start Num: 4

Candidate Starts for Noelle_44:

(3, 30033), (Start: 4 @29982 has 142 MA's), (7, 29955), (8, 29901), (11, 29853), (13, 29826),

Gene: NorthStar_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for NorthStar_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: NotAPhaseMom_44 Start: 29727, Stop: 29557, Start Num: 4

Candidate Starts for NotAPhaseMom_44:

(1, 29967), (2, 29865), (3, 29778), (Start: 4 @29727 has 142 MA's), (11, 29592), (12, 29580),

Gene: Nyxis_44 Start: 29613, Stop: 29446, Start Num: 4

Candidate Starts for Nyxis_44:

(1, 29853), (2, 29751), (3, 29664), (Start: 4 @29613 has 142 MA's), (9, 29523), (11, 29484), (12, 29472), (13, 29457),

Gene: OKaNui_44 Start: 29773, Stop: 29606, Start Num: 4

Candidate Starts for OKaNui_44:

(1, 30013), (2, 29911), (3, 29824), (Start: 4 @29773 has 142 MA's), (10, 29677), (11, 29644), (13, 29617),

Gene: Obama12_45 Start: 30147, Stop: 29977, Start Num: 4

Candidate Starts for Obama12_45:

(3, 30198), (Start: 4 @30147 has 142 MA's), (7, 30120), (11, 30015), (13, 29988),

Gene: Ohfah_45 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Ohfah_45:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Palestino_43 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Palestino_43:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (5, 29705), (10, 29624), (11, 29591), (13, 29564),

Gene: Peaches_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Peaches_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Perplexer_43 Start: 29669, Stop: 29499, Start Num: 4

Candidate Starts for Perplexer_43:

(3, 29720), (Start: 4 @29669 has 142 MA's), (6, 29651), (7, 29642), (11, 29537), (13, 29510),

Gene: PeterPeter_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for PeterPeter_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: PetiteSangsue_43 Start: 29672, Stop: 29502, Start Num: 4

Candidate Starts for PetiteSangsue_43:

(3, 29723), (Start: 4 @29672 has 142 MA's), (6, 29654), (7, 29645), (11, 29540), (13, 29513),

Gene: Phacado_44 Start: 29722, Stop: 29552, Start Num: 4

Candidate Starts for Phacado_44:

(1, 29962), (2, 29860), (3, 29773), (Start: 4 @29722 has 142 MA's), (11, 29587), (12, 29575),

Gene: Phelipe_45 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Phelipe_45:

(2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Phighter1804_44 Start: 29765, Stop: 29595, Start Num: 4

Candidate Starts for Phighter1804_44:

(3, 29816), (Start: 4 @29765 has 142 MA's), (11, 29630), (12, 29618),

Gene: Phontbonne_44 Start: 29614, Stop: 29447, Start Num: 4

Candidate Starts for Phontbonne_44:

(1, 29854), (2, 29752), (3, 29665), (Start: 4 @29614 has 142 MA's), (7, 29587), (10, 29518), (11, 29485), (13, 29458),

Gene: Pipcraft_42 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Pipcraft_42:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Polymorphads_45 Start: 29716, Stop: 29546, Start Num: 4

Candidate Starts for Polymorphads_45:

(1, 29956), (2, 29854), (3, 29767), (Start: 4 @29716 has 142 MA's), (11, 29581), (12, 29569),

Gene: Pumbaa_44 Start: 29665, Stop: 29498, Start Num: 4

Candidate Starts for Pumbaa_44:

(1, 29905), (2, 29803), (3, 29716), (Start: 4 @29665 has 142 MA's), (10, 29569), (11, 29536), (13, 29509),

Gene: Relief_43 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Relief_43:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: RockieBear_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for RockieBear_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Romney_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Romney_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: Roosevelt_43 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Roosevelt_43:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: Rosa24_43 Start: 29754, Stop: 29587, Start Num: 4

Candidate Starts for Rosa24_43:

(1, 29994), (2, 29892), (3, 29805), (Start: 4 @29754 has 142 MA's), (10, 29658), (11, 29625), (13, 29598),

Gene: Ruin_44 Start: 29716, Stop: 29549, Start Num: 4

Candidate Starts for Ruin_44:

(1, 29956), (2, 29854), (3, 29767), (Start: 4 @29716 has 142 MA's), (5, 29701), (10, 29620), (11, 29587), (13, 29560),

Gene: Sabertooth_44 Start: 29725, Stop: 29552, Start Num: 4

Candidate Starts for Sabertooth_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (13, 29563),

Gene: Scamp_44 Start: 29725, Stop: 29555, Start Num: 4

Candidate Starts for Scamp_44:

(1, 29965), (2, 29863), (3, 29776), (Start: 4 @29725 has 142 MA's), (11, 29590), (12, 29578),

Gene: SenorClean_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for SenorClean_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Shaka_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Shaka_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: SheldonCooper_46 Start: 30146, Stop: 29976, Start Num: 4

Candidate Starts for SheldonCooper_46:

(3, 30197), (Start: 4 @30146 has 142 MA's), (7, 30119), (11, 30014), (13, 29987),

Gene: Shygu2_43 Start: 29672, Stop: 29505, Start Num: 4

Candidate Starts for Shygu2_43:

(3, 29723), (Start: 4 @29672 has 142 MA's), (7, 29645), (9, 29582), (11, 29543), (13, 29516),

Gene: Skipitt_43 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for Skipitt_43:

(1, 29957), (2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (10, 29621), (11, 29588), (13, 29561),

Gene: Sparxx_45 Start: 29718, Stop: 29548, Start Num: 4

Candidate Starts for Sparxx_45:

(1, 29958), (2, 29856), (3, 29769), (Start: 4 @29718 has 142 MA's), (11, 29583), (12, 29571),

Gene: Spino_43 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Spino_43:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Stasia_43 Start: 29592, Stop: 29422, Start Num: 4

Candidate Starts for Stasia_43:

(3, 29643), (Start: 4 @29592 has 142 MA's), (5, 29577), (11, 29457), (12, 29445),

Gene: SteMason_43 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for SteMason_43:

(2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (10, 29624), (11, 29591), (13, 29564),

Gene: Stink_44 Start: 30140, Stop: 29970, Start Num: 4

Candidate Starts for Stink_44:

(3, 30191), (Start: 4 @30140 has 142 MA's), (7, 30113), (11, 30008), (13, 29981),

Gene: Sultana_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for Sultana_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Taquarus_44 Start: 29726, Stop: 29556, Start Num: 4

Candidate Starts for Taquarus_44:

(1, 29966), (2, 29864), (3, 29777), (Start: 4 @29726 has 142 MA's), (11, 29591), (12, 29579),

Gene: Thanksgivukkah_43 Start: 29721, Stop: 29554, Start Num: 4

Candidate Starts for Thanksgivukkah_43:

(1, 29961), (2, 29859), (3, 29772), (Start: 4 @29721 has 142 MA's), (10, 29625), (11, 29592), (13, 29565),

Gene: TinaFeyge_44 Start: 29718, Stop: 29548, Start Num: 4

Candidate Starts for TinaFeyge_44:

(1, 29958), (2, 29856), (3, 29769), (Start: 4 @29718 has 142 MA's), (11, 29583), (12, 29571),

Gene: Tinybot_43 Start: 29750, Stop: 29583, Start Num: 4

Candidate Starts for Tinybot_43:

(1, 29990), (2, 29888), (3, 29801), (Start: 4 @29750 has 142 MA's), (10, 29654), (11, 29621), (13, 29594),

Gene: TiroTheta9_44 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for TiroTheta9_44:

(2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (10, 29621), (11, 29588), (13, 29561),

Gene: TroyPia_45 Start: 29721, Stop: 29551, Start Num: 4

Candidate Starts for TroyPia_45:

(1, 29961), (2, 29859), (3, 29772), (Start: 4 @29721 has 142 MA's), (11, 29586), (12, 29574),

Gene: TygerBlood_44 Start: 29723, Stop: 29553, Start Num: 4

Candidate Starts for TygerBlood_44:

(1, 29963), (2, 29861), (3, 29774), (Start: 4 @29723 has 142 MA's), (11, 29588), (12, 29576),

Gene: Ulysses_43 Start: 29400, Stop: 29233, Start Num: 4

Candidate Starts for Ulysses_43:

(3, 29451), (Start: 4 @29400 has 142 MA's), (10, 29304), (11, 29271), (13, 29244),

Gene: Wander_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Wander_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: Wilbur_44 Start: 29720, Stop: 29553, Start Num: 4

Candidate Starts for Wilbur_44:

(1, 29960), (2, 29858), (3, 29771), (Start: 4 @29720 has 142 MA's), (7, 29693), (10, 29624), (11, 29591), (13, 29564),

Gene: Wile_43 Start: 29703, Stop: 29533, Start Num: 4

Candidate Starts for Wile_43:

(3, 29754), (Start: 4 @29703 has 142 MA's), (6, 29685), (7, 29676), (11, 29571), (13, 29544),

Gene: Wizard007_44 Start: 29728, Stop: 29558, Start Num: 4

Candidate Starts for Wizard007_44:

(1, 29968), (2, 29866), (3, 29779), (Start: 4 @29728 has 142 MA's), (11, 29593), (12, 29581),

Gene: Xena_42 Start: 29669, Stop: 29499, Start Num: 4

Candidate Starts for Xena_42:

(3, 29720), (Start: 4 @29669 has 142 MA's), (6, 29651), (7, 29642), (11, 29537), (13, 29510),

Gene: YoSam321_44 Start: 29717, Stop: 29550, Start Num: 4

Candidate Starts for YoSam321_44:

(1, 29957), (2, 29855), (3, 29768), (Start: 4 @29717 has 142 MA's), (10, 29621), (11, 29588), (13, 29561),