Pham 287836

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 287836 Report

This analysis was run 03/28/26 on database version 641.

Pham number 287836 has 80 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Danzina_1, Godpower_1, Lika_1, Brataylor_1, Zemlya_1
• Track 2 : Hydra_1, Indigo_1, Nerdos_1, BeardedLady_1, SunsetPointe_1, Bovely_1, Eddasa_1, Jash_1, Esperer_1, Caliburn_1, Legacy_1, BryanRecycles_1, Phettuccine_1, Oliynyk_1, EnochSoames_1, Izzy_1, Aaronocolus_1, Ozzie_1, Rusticus_1, Leviticus_1, Unstoppable_1
• Track 3 : TuanPN_1, Ejemplo_1
• Track 4 : Asten_1, BarryBee_1, Emaanora_1, SarahRose_1, Whatever_1, Hippo_1, Snorlax_1
• Track 5 : TagePhighter_1, Dwayne_1, Chucky_1, OzzyJ_1, Triste_1, Werner_1
• Track 6 : Lorelei_1, Sujidade_1, Rana_1, Nabi_1
• Track 7 : Celeste_1
• Track 8 : Nanodon_1
• Track 9 : RedBear_1, Katalie_1, South40_1
• Track 10 : Yasdnil_1, Maneekul_1
• Track 11 : Dattran_1, Goby_1, Toma_1
• Track 12 : Andris_1
• Track 13 : Saftant_1
• Track 14 : Jhitchelle_1
• Track 15 : Pavo_1, Sudan_1, ElGato_1, Conan_1, Provolone_1, Dexers_1, Kaine_1, Alsaber_1
• Track 16 : Amela_1, Verse_1
• Track 17 : ZamZam_2
• Track 18 : Vanseggelen_1, VieEnRose_1
• Track 19 : phiCAM_01
• Track 20 : Speedwell_1
• Track 21 : SunkenRoot_1
• Track 22 : Yosif_1
• Track 23 : Celery_1
• Track 24 : Verabelle_1
• Track 25 : Itza_1, Celia_1, Urza_1

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

The start number called the most often in the published annotations is 8, it was called in 68 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_1, Alsaber_1, Asten_1, BarryBee_1, BeardedLady_1, Bovely_1, Brataylor_1, BryanRecycles_1, Caliburn_1, Celery_1, Celeste_1, Celia_1, Chucky_1, Conan_1, Danzina_1, Dattran_1, Dexers_1, Dwayne_1, Eddasa_1, Ejemplo_1, ElGato_1, Emaanora_1, EnochSoames_1, Esperer_1, Goby_1, Godpower_1, Hippo_1, Hydra_1, Indigo_1, Itza_1, Izzy_1, Jash_1, Jhitchelle_1, Kaine_1, Katalie_1, Legacy_1, Leviticus_1, Lika_1, Lorelei_1, Maneekul_1, Nabi_1, Nanodon_1, Nerdos_1, Oliynyk_1, Ozzie_1, OzzyJ_1, Pavo_1, Phettuccine_1, Provolone_1, Rana_1, RedBear_1, Rusticus_1, Saftant_1, SarahRose_1, Snorlax_1, South40_1, Speedwell_1, Sudan_1, Sujidade_1, SunkenRoot_1, SunsetPointe_1, TagePhighter_1, Toma_1, Triste_1, TuanPN_1, Unstoppable_1, Urza_1, Vanseggelen_1, Verabelle_1, VieEnRose_1, Werner_1, Whatever_1, Yasdnil_1, Yosif_1, ZamZam_2, Zemlya_1, phiCAM_01,

Genes that have the "Most Annotated" start but do not call it:
• Amela_1, Andris_1, Verse_1,

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

Summary by start number:

Start 3:
• Found in 7 of 80 (8.8%) of genes in pham
• Manual Annotations of this start: 2 of 71
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Amela_1 (BD3), Verse_1 (BD3),

Start 8:
• Found in 80 of 80 (100.0%) of genes in pham
• Manual Annotations of this start: 68 of 71
• Called 96.2% of time when present
• Phage (with cluster) where this start called: Aaronocolus_1 (BD1), Alsaber_1 (BD3), Asten_1 (BD1), BarryBee_1 (BD1), BeardedLady_1 (BD1), Bovely_1 (BD1), Brataylor_1 (BD1), BryanRecycles_1 (BD1), Caliburn_1 (BD1), Celery_1 (BD3), Celeste_1 (BD1), Celia_1 (BD6), Chucky_1 (BD1), Conan_1 (BD3), Danzina_1 (BD1), Dattran_1 (BD1), Dexers_1 (BD3), Dwayne_1 (BD1), Eddasa_1 (BD1), Ejemplo_1 (BD1), ElGato_1 (BD3), Emaanora_1 (BD1), EnochSoames_1 (BD1), Esperer_1 (BD1), Goby_1 (BD1), Godpower_1 (BD1), Hippo_1 (BD1), Hydra_1 (BD1), Indigo_1 (BD1), Itza_1 (BD6), Izzy_1 (BD1), Jash_1 (BD1), Jhitchelle_1 (BD3), Kaine_1 (BD3), Katalie_1 (BD1), Legacy_1 (BD1), Leviticus_1 (BD1), Lika_1 (BD1), Lorelei_1 (BD1), Maneekul_1 (BD1), Nabi_1 (BD1), Nanodon_1 (BD1), Nerdos_1 (BD1), Oliynyk_1 (BD1), Ozzie_1 (BD1), OzzyJ_1 (BD1), Pavo_1 (BD3), Phettuccine_1 (BD1), Provolone_1 (BD3), Rana_1 (BD1), RedBear_1 (BD1), Rusticus_1 (BD1), Saftant_1 (BD3), SarahRose_1 (BD1), Snorlax_1 (BD1), South40_1 (BD1), Speedwell_1 (BD3), Sudan_1 (BD3), Sujidade_1 (BD1), SunkenRoot_1 (BD3), SunsetPointe_1 (BD1), TagePhighter_1 (BD1), Toma_1 (BD1), Triste_1 (BD1), TuanPN_1 (BD1), Unstoppable_1 (BD1), Urza_1 (BD6), Vanseggelen_1 (BD3), Verabelle_1 (BD3), VieEnRose_1 (BD6), Werner_1 (BD1), Whatever_1 (BD1), Yasdnil_1 (BD1), Yosif_1 (BD3), ZamZam_2 (BD3), Zemlya_1

(BD1), phiCAM_01 (BD3),

Start 9:
• Found in 1 of 80 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Andris_1 (BD2),

Summary by clusters:

There are 4 clusters represented in this pham: BD6, BD1, BD3, BD2,

Info for manual annotations of cluster BD1:
•Start number 8 was manually annotated 54 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 9 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 3 was manually annotated 2 times for cluster BD3.
•Start number 8 was manually annotated 10 times for cluster BD3.

Info for manual annotations of cluster BD6:
•Start number 8 was manually annotated 4 times for cluster BD6.

Gene Information:
Gene: Aaronocolus_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Aaronocolus_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Alsaber_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Alsaber_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Amela_1 Start: 369, Stop: 91, Start Num: 3
Candidate Starts for Amela_1:
(Start: 3 @369 has 2 MA's), (Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Andris_1 Start: 244, Stop: 65, Start Num: 9
Candidate Starts for Andris_1:
(Start: 8 @253 has 68 MA's), (Start: 9 @244 has 1 MA's), (22, 109),

Gene: Asten_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Asten_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: BarryBee_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for BarryBee_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: BeardedLady_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for BeardedLady_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Bovely_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Bovely_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Brataylor_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Brataylor_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: BryanRecycles_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for BryanRecycles_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Caliburn_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Caliburn_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Celery_1 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for Celery_1:
(Start: 3 @369 has 2 MA's), (5, 351), (Start: 8 @297 has 68 MA's), (12, 249), (13, 246), (20, 165),

Gene: Celeste_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Celeste_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (10, 273), (17, 231), (19, 174), (26, 111),

Gene: Celia_1 Start: 300, Stop: 103, Start Num: 8
Candidate Starts for Celia_1:
(2, 390), (Start: 8 @300 has 68 MA's), (12, 249),

Gene: Chucky_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Chucky_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Conan_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Conan_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Danzina_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Danzina_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Dattran_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Dattran_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Dexers_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Dexers_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Dwayne_1 Start: 296, Stop: 90, Start Num: 8

Candidate Starts for Dwayne_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Eddasa_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Eddasa_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Ejemplo_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Ejemplo_1:
(1, 393), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: ElGato_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for ElGato_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Emaanora_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Emaanora_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: EnochSoames_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for EnochSoames_1:
(Start: 8 @296 has 68 MA's), (18, 188), (19, 173), (21, 158), (24, 128),

Gene: Esperer_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Esperer_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Goby_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Goby_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Godpower_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Godpower_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Hippo_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Hippo_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Hydra_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Hydra_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Indigo_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Indigo_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Itza_1 Start: 300, Stop: 103, Start Num: 8
Candidate Starts for Itza_1:
(2, 390), (Start: 8 @300 has 68 MA's), (12, 249),

Gene: Izzy_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Izzy_1:

(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Jash_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Jash_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Jhitchelle_1 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for Jhitchelle_1:
(Start: 3 @369 has 2 MA's), (Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Kaine_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Kaine_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Katalie_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Katalie_1:
(6, 344), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230),

Gene: Legacy_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Legacy_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Leviticus_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Leviticus_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Lika_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Lika_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Lorelei_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Lorelei_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: Maneekul_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Maneekul_1:
(1, 393), (Start: 8 @297 has 68 MA's), (15, 237), (17, 231), (26, 111),

Gene: Nabi_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Nabi_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: Nanodon_1 Start: 296, Stop: 102, Start Num: 8
Candidate Starts for Nanodon_1:
(Start: 8 @296 has 68 MA's), (10, 272), (18, 188), (26, 110),

Gene: Nerdos_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Nerdos_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Oliynyk_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Oliynyk_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Ozzie_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Ozzie_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: OzzyJ_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for OzzyJ_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Pavo_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Pavo_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Phettuccine_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Phettuccine_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Provolone_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Provolone_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Rana_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Rana_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: RedBear_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for RedBear_1:
(6, 344), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230),

Gene: Rusticus_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Rusticus_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Saftant_1 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for Saftant_1:
(Start: 8 @297 has 68 MA's), (13, 246), (20, 165),

Gene: SarahRose_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for SarahRose_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Snorlax_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Snorlax_1:
(1, 392), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: South40_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for South40_1:
(6, 344), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230),

Gene: Speedwell_1 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for Speedwell_1:
(Start: 3 @369 has 2 MA's), (Start: 8 @297 has 68 MA's), (12, 249),

Gene: Sudan_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Sudan_1:
(Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: Sujidade_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Sujidade_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: SunkenRoot_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for SunkenRoot_1:
(5, 351), (Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: SunsetPointe_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for SunsetPointe_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: TagePhighter_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for TagePhighter_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Toma_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Toma_1:
(7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: Triste_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Triste_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: TuanPN_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for TuanPN_1:
(1, 393), (Start: 8 @297 has 68 MA's), (17, 231), (26, 111),

Gene: Unstoppable_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Unstoppable_1:
(Start: 8 @297 has 68 MA's), (18, 189), (19, 174), (21, 159), (24, 129),

Gene: Urza_1 Start: 300, Stop: 103, Start Num: 8
Candidate Starts for Urza_1:
(2, 390), (Start: 8 @300 has 68 MA's), (12, 249),

Gene: Vanseggelen_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Vanseggelen_1:
(Start: 8 @297 has 68 MA's), (12, 249),

Gene: Verabelle_1 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for Verabelle_1:
(Start: 3 @369 has 2 MA's), (4, 363), (Start: 8 @297 has 68 MA's), (14, 240),

Gene: Verse_1 Start: 369, Stop: 91, Start Num: 3
Candidate Starts for Verse_1:
(Start: 3 @369 has 2 MA's), (Start: 8 @297 has 68 MA's), (12, 249), (14, 240),

Gene: VieEnRose_1 Start: 300, Stop: 103, Start Num: 8

Candidate Starts for VieEnRose_1:
(Start: 8 @300 has 68 MA's), (12, 249),

Gene: Werner_1 Start: 296, Stop: 90, Start Num: 8
Candidate Starts for Werner_1:
(7, 323), (Start: 8 @296 has 68 MA's), (10, 272), (17, 230), (26, 110),

Gene: Whatever_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Whatever_1:
(1, 393), (Start: 8 @297 has 68 MA's), (10, 273), (17, 231), (26, 111),

Gene: Yasdnil_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Yasdnil_1:
(1, 393), (Start: 8 @297 has 68 MA's), (15, 237), (17, 231), (26, 111),

Gene: Yosif_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Yosif_1:
(Start: 8 @297 has 68 MA's), (11, 252), (12, 249), (16, 234), (23, 138), (25, 120),

Gene: ZamZam_2 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for ZamZam_2:
(Start: 8 @297 has 68 MA's), (10, 273), (12, 249), (14, 240),

Gene: Zemlya_1 Start: 297, Stop: 91, Start Num: 8
Candidate Starts for Zemlya_1:
(1, 393), (7, 324), (Start: 8 @297 has 68 MA's), (17, 231), (19, 174), (26, 111),

Gene: phiCAM_01 Start: 297, Stop: 103, Start Num: 8
Candidate Starts for phiCAM_01:
(Start: 3 @369 has 2 MA's), (Start: 8 @297 has 68 MA's), (12, 249), (13, 246), (20, 165),