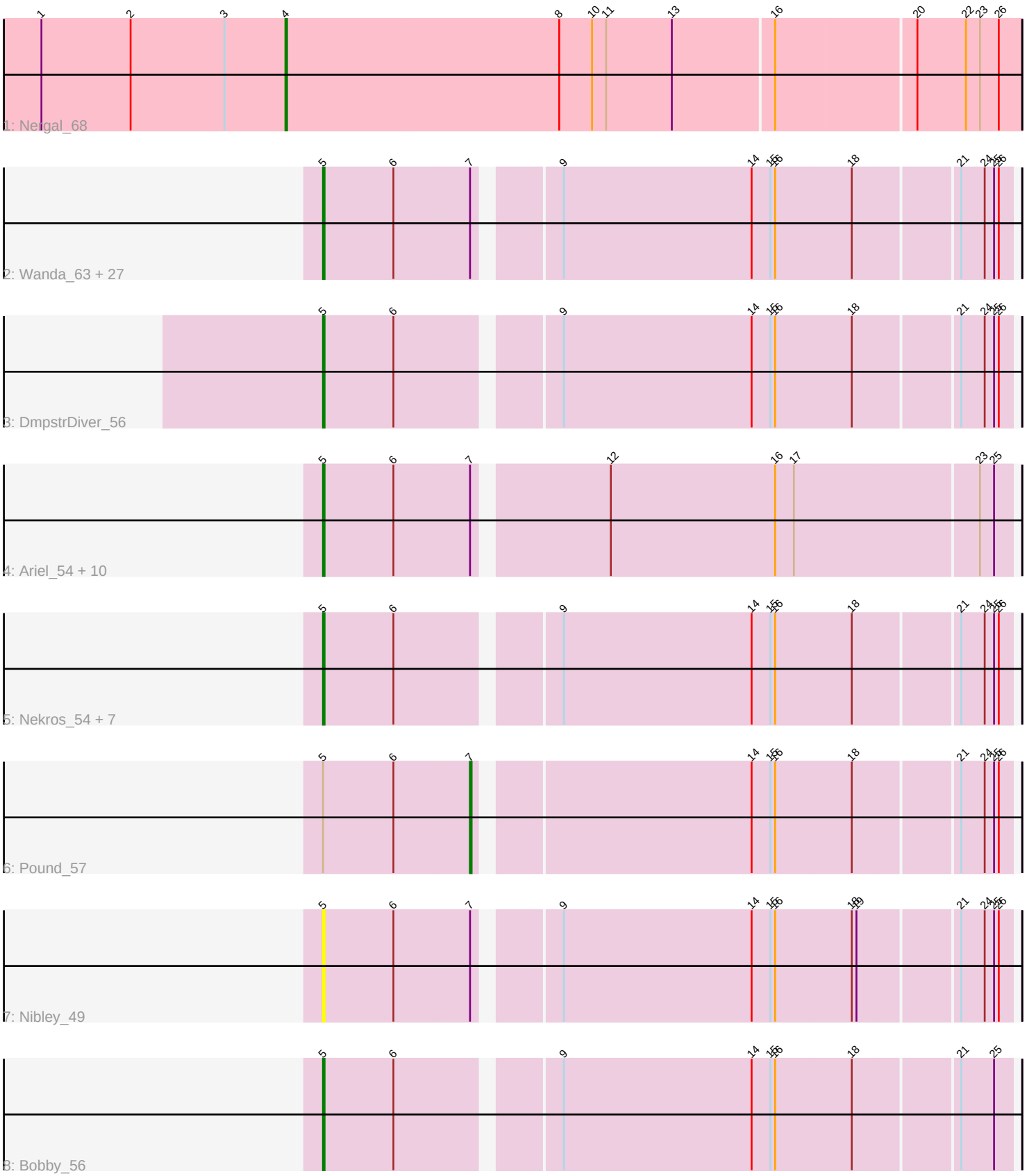
Pham 344080


1: Nergal_68
2: Wanda_63 + 27
3: DmpstrDiver_56
4: Ariel_54 + 10
5: Nekros_54 + 7
6: Pound_57
7: Nibley_49
8: Bobby_56

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 344080 Report

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

Pham number 344080 has 52 members, 10 are drafts.

Phages represented in each track:
• Track 1 : Nergal_68
• Track 2 : Wanda_63, NihilNomen_56, Hannaconda_53, Ejimix_57, Phoebus_56, Bagrid_56, Minerva_63, Kalah2_53, Constella_47, BAKA_61, EricMillard_57, HokkenD_50, Bombitas_54, Hidrated_53, Beem_57, Dove_52, Marleymoo_56, KashFlow_50, Odette_55, Dallas_56, Halley_57, Hughesyang_55, JuicyJay_56, ThreeRngTarjay_55, Redno2_54, Klein_57, Schatzie_52, Zelink_55
• Track 3 : DmpstrDiver_56
• Track 4 : Ariel_54, Gonephishing_57, Rearden_51, MiaZeal_54, LittleE_57, Lucky2013_55, Superphikiman_55, Omega_59, Porcelain_53, Squint_54, Courthouse_54
• Track 5 : Nekros_54, Xiaokay_50, Thibault_49, Yeet_55, Duke13_60, Shaboozey_51, BronnyJames_51, Optimus_62
• Track 6 : Pound_57
• Track 7 : Nibley_49
• Track 8 : Bobby_56

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

The start number called the most often in the published annotations is 5, it was called in 40 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ariel_54, BAKA_61, Bagrid_56, Beem_57, Bobby_56, Bombitas_54, BronnyJames_51, Constella_47, Courthouse_54, Dallas_56, DmpstrDiver_56, Dove_52, Duke13_60, Ejimix_57, EricMillard_57, Gonephishing_57, Halley_57, Hannaconda_53, Hidrated_53, HokkenD_50, Hughesyang_55, JuicyJay_56, Kalah2_53, KashFlow_50, Klein_57, LittleE_57, Lucky2013_55, Marleymoo_56, MiaZeal_54, Minerva_63, Nekros_54, Nibley_49, NihilNomen_56, Odette_55, Omega_59, Optimus_62, Phoebus_56, Porcelain_53, Rearden_51, Redno2_54, Schatzie_52, Shaboozey_51, Squint_54, Superphikiman_55, Thibault_49, ThreeRngTarjay_55, Wanda_63, Xiaokay_50, Yeet_55, Zelink_55,

Genes that have the "Most Annotated" start but do not call it:
• Pound_57,

Genes that do not have the "Most Annotated" start:
• Nergal_68,

Summary by start number:

Start 4:
• Found in 1 of 52 (1.9%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nergal_68 (AG),

Start 5:
• Found in 51 of 52 (98.1%) of genes in pham
• Manual Annotations of this start: 40 of 42
• Called 98.0% of time when present
• Phage (with cluster) where this start called: Ariel_54 (J), BAKA_61 (J), Bagrid_56 (J), Beem_57 (J), Bobby_56 (J), Bombitas_54 (J), BronnyJames_51 (J), Constella_47 (J), Courthouse_54 (J), Dallas_56 (J), DmpstrDiver_56 (J), Dove_52 (J), Duke13_60 (J), Ejimix_57 (J), EricMillard_57 (J), Gonephishing_57 (J), Halley_57 (J), Hannaconda_53 (J), Hidrated_53 (J), HokkenD_50 (J), Hughesyang_55 (J), JuicyJay_56 (J), Kalah2_53 (J), KashFlow_50 (J), Klein_57 (J), LittleE_57 (J), Lucky2013_55 (J), Marleymoo_56 (J), MiaZeal_54 (J), Minerva_63 (J), Nekros_54 (J), Nibley_49 (J), NihilNomen_56 (J), Odette_55 (J), Omega_59 (J), Optimus_62 (J), Phoebus_56 (J), Porcelain_53 (J), Rearden_51 (J), Redno2_54 (J), Schatzie_52 (J), Shaboozey_51 (J), Squint_54 (J), Superphikiman_55 (J), Thibault_49 (J), ThreeRngTarjay_55 (J), Wanda_63 (J), Xiaokay_50 (J), Yeet_55 (J), Zelink_55 (J),

Start 7:
• Found in 41 of 52 (78.8%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 2.4% of time when present
• Phage (with cluster) where this start called: Pound_57 (J),

Summary by clusters:

There are 2 clusters represented in this pham: J, AG,

Info for manual annotations of cluster AG:
•Start number 4 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster J:
•Start number 5 was manually annotated 40 times for cluster J.
•Start number 7 was manually annotated 1 time for cluster J.

Gene Information:

Gene: Ariel_54 Start: 41817, Stop: 41395, Start Num: 5
Candidate Starts for Ariel_54:
(Start: 5 @41817 has 40 MA's), (6, 41772), (Start: 7 @41724 has 1 MA's), (12, 41646), (16, 41541), (17, 41529), (23, 41415), (25, 41406),

Gene: BAKA_61 Start: 45940, Stop: 45524, Start Num: 5
Candidate Starts for BAKA_61:
(Start: 5 @45940 has 40 MA's), (6, 45895), (Start: 7 @45847 has 1 MA's), (9, 45802), (14, 45682), (15, 45670), (16, 45667), (18, 45619), (21, 45556), (24, 45541), (25, 45535), (26, 45532),

Gene: Bagrid_56 Start: 45273, Stop: 44857, Start Num: 5
Candidate Starts for Bagrid_56:
(Start: 5 @45273 has 40 MA's), (6, 45228), (Start: 7 @45180 has 1 MA's), (9, 45135), (14, 45015), (15, 45003), (16, 45000), (18, 44952), (21, 44889), (24, 44874), (25, 44868), (26, 44865),

Gene: Beem_57 Start: 45839, Stop: 45423, Start Num: 5
Candidate Starts for Beem_57:
(Start: 5 @45839 has 40 MA's), (6, 45794), (Start: 7 @45746 has 1 MA's), (9, 45701), (14, 45581), (15, 45569), (16, 45566), (18, 45518), (21, 45455), (24, 45440), (25, 45434), (26, 45431),

Gene: Bobby_56 Start: 44784, Stop: 44368, Start Num: 5
Candidate Starts for Bobby_56:
(Start: 5 @44784 has 40 MA's), (6, 44739), (9, 44646), (14, 44526), (15, 44514), (16, 44511), (18, 44463), (21, 44400), (25, 44379),

Gene: Bombitas_54 Start: 45434, Stop: 45018, Start Num: 5
Candidate Starts for Bombitas_54:
(Start: 5 @45434 has 40 MA's), (6, 45389), (Start: 7 @45341 has 1 MA's), (9, 45296), (14, 45176), (15, 45164), (16, 45161), (18, 45113), (21, 45050), (24, 45035), (25, 45029), (26, 45026),

Gene: BronnyJames_51 Start: 40528, Stop: 40133, Start Num: 5
Candidate Starts for BronnyJames_51:
(Start: 5 @40528 has 40 MA's), (6, 40483), (9, 40390), (14, 40270), (15, 40258), (16, 40255), (18, 40207), (21, 40165), (24, 40150), (25, 40144), (26, 40141),

Gene: Constella_47 Start: 41875, Stop: 41459, Start Num: 5
Candidate Starts for Constella_47:
(Start: 5 @41875 has 40 MA's), (6, 41830), (Start: 7 @41782 has 1 MA's), (9, 41737), (14, 41617), (15, 41605), (16, 41602), (18, 41554), (21, 41491), (24, 41476), (25, 41470), (26, 41467),

Gene: Courthouse_54 Start: 42221, Stop: 41799, Start Num: 5
Candidate Starts for Courthouse_54:
(Start: 5 @42221 has 40 MA's), (6, 42176), (Start: 7 @42128 has 1 MA's), (12, 42050), (16, 41945), (17, 41933), (23, 41819), (25, 41810),

Gene: Dallas_56 Start: 44760, Stop: 44344, Start Num: 5
Candidate Starts for Dallas_56:
(Start: 5 @44760 has 40 MA's), (6, 44715), (Start: 7 @44667 has 1 MA's), (9, 44622), (14, 44502), (15, 44490), (16, 44487), (18, 44439), (21, 44376), (24, 44361), (25, 44355), (26, 44352),

Gene: DmpstrDiver_56 Start: 45187, Stop: 44771, Start Num: 5
Candidate Starts for DmpstrDiver_56:
(Start: 5 @45187 has 40 MA's), (6, 45142), (9, 45049), (14, 44929), (15, 44917), (16, 44914), (18, 44866), (21, 44803), (24, 44788), (25, 44782), (26, 44779),

Gene: Dove_52 Start: 44799, Stop: 44383, Start Num: 5
Candidate Starts for Dove_52:

(Start: 5 @44799 has 40 MA's), (6, 44754), (Start: 7 @44706 has 1 MA's), (9, 44661), (14, 44541), (15, 44529), (16, 44526), (18, 44478), (21, 44415), (24, 44400), (25, 44394), (26, 44391),

Gene: Duke13_60 Start: 45706, Stop: 45290, Start Num: 5
Candidate Starts for Duke13_60:
(Start: 5 @45706 has 40 MA's), (6, 45661), (9, 45568), (14, 45448), (15, 45436), (16, 45433), (18, 45385), (21, 45322), (24, 45307), (25, 45301), (26, 45298),

Gene: Ejimix_57 Start: 46624, Stop: 46208, Start Num: 5
Candidate Starts for Ejimix_57:
(Start: 5 @46624 has 40 MA's), (6, 46579), (Start: 7 @46531 has 1 MA's), (9, 46486), (14, 46366), (15, 46354), (16, 46351), (18, 46303), (21, 46240), (24, 46225), (25, 46219), (26, 46216),

Gene: EricMillard_57 Start: 46125, Stop: 45709, Start Num: 5
Candidate Starts for EricMillard_57:
(Start: 5 @46125 has 40 MA's), (6, 46080), (Start: 7 @46032 has 1 MA's), (9, 45987), (14, 45867), (15, 45855), (16, 45852), (18, 45804), (21, 45741), (24, 45726), (25, 45720), (26, 45717),

Gene: Gonephishing_57 Start: 43499, Stop: 43077, Start Num: 5
Candidate Starts for Gonephishing_57:
(Start: 5 @43499 has 40 MA's), (6, 43454), (Start: 7 @43406 has 1 MA's), (12, 43328), (16, 43223), (17, 43211), (23, 43097), (25, 43088),

Gene: Halley_57 Start: 45838, Stop: 45422, Start Num: 5
Candidate Starts for Halley_57:
(Start: 5 @45838 has 40 MA's), (6, 45793), (Start: 7 @45745 has 1 MA's), (9, 45700), (14, 45580), (15, 45568), (16, 45565), (18, 45517), (21, 45454), (24, 45439), (25, 45433), (26, 45430),

Gene: Hannaconda_53 Start: 40327, Stop: 39911, Start Num: 5
Candidate Starts for Hannaconda_53:
(Start: 5 @40327 has 40 MA's), (6, 40282), (Start: 7 @40234 has 1 MA's), (9, 40189), (14, 40069), (15, 40057), (16, 40054), (18, 40006), (21, 39943), (24, 39928), (25, 39922), (26, 39919),

Gene: Hidrated_53 Start: 45522, Stop: 45106, Start Num: 5
Candidate Starts for Hidrated_53:
(Start: 5 @45522 has 40 MA's), (6, 45477), (Start: 7 @45429 has 1 MA's), (9, 45384), (14, 45264), (15, 45252), (16, 45249), (18, 45201), (21, 45138), (24, 45123), (25, 45117), (26, 45114),

Gene: HokkenD_50 Start: 44107, Stop: 43691, Start Num: 5
Candidate Starts for HokkenD_50:
(Start: 5 @44107 has 40 MA's), (6, 44062), (Start: 7 @44014 has 1 MA's), (9, 43969), (14, 43849), (15, 43837), (16, 43834), (18, 43786), (21, 43723), (24, 43708), (25, 43702), (26, 43699),

Gene: Hughesyang_55 Start: 45767, Stop: 45351, Start Num: 5
Candidate Starts for Hughesyang_55:
(Start: 5 @45767 has 40 MA's), (6, 45722), (Start: 7 @45674 has 1 MA's), (9, 45629), (14, 45509), (15, 45497), (16, 45494), (18, 45446), (21, 45383), (24, 45368), (25, 45362), (26, 45359),

Gene: JuicyJay_56 Start: 46973, Stop: 46557, Start Num: 5
Candidate Starts for JuicyJay_56:
(Start: 5 @46973 has 40 MA's), (6, 46928), (Start: 7 @46880 has 1 MA's), (9, 46835), (14, 46715), (15, 46703), (16, 46700), (18, 46652), (21, 46589), (24, 46574), (25, 46568), (26, 46565),

Gene: Kalah2_53 Start: 45382, Stop: 44966, Start Num: 5
Candidate Starts for Kalah2_53:
(Start: 5 @45382 has 40 MA's), (6, 45337), (Start: 7 @45289 has 1 MA's), (9, 45244), (14, 45124), (15, 45112), (16, 45109), (18, 45061), (21, 44998), (24, 44983), (25, 44977), (26, 44974),

Gene: KashFlow_50 Start: 39948, Stop: 39532, Start Num: 5
Candidate Starts for KashFlow_50:
(Start: 5 @39948 has 40 MA's), (6, 39903), (Start: 7 @39855 has 1 MA's), (9, 39810), (14, 39690), (15, 39678), (16, 39675), (18, 39627), (21, 39564), (24, 39549), (25, 39543), (26, 39540),

Gene: Klein_57 Start: 45405, Stop: 44989, Start Num: 5
Candidate Starts for Klein_57:
(Start: 5 @45405 has 40 MA's), (6, 45360), (Start: 7 @45312 has 1 MA's), (9, 45267), (14, 45147), (15, 45135), (16, 45132), (18, 45084), (21, 45021), (24, 45006), (25, 45000), (26, 44997),

Gene: LittleE_57 Start: 44828, Stop: 44406, Start Num: 5
Candidate Starts for LittleE_57:
(Start: 5 @44828 has 40 MA's), (6, 44783), (Start: 7 @44735 has 1 MA's), (12, 44657), (16, 44552), (17, 44540), (23, 44426), (25, 44417),

Gene: Lucky2013_55 Start: 42357, Stop: 41935, Start Num: 5
Candidate Starts for Lucky2013_55:
(Start: 5 @42357 has 40 MA's), (6, 42312), (Start: 7 @42264 has 1 MA's), (12, 42186), (16, 42081), (17, 42069), (23, 41955), (25, 41946),

Gene: Marleymoo_56 Start: 45420, Stop: 45004, Start Num: 5
Candidate Starts for Marleymoo_56:
(Start: 5 @45420 has 40 MA's), (6, 45375), (Start: 7 @45327 has 1 MA's), (9, 45282), (14, 45162), (15, 45150), (16, 45147), (18, 45099), (21, 45036), (24, 45021), (25, 45015), (26, 45012),

Gene: MiaZeal_54 Start: 42032, Stop: 41610, Start Num: 5
Candidate Starts for MiaZeal_54:
(Start: 5 @42032 has 40 MA's), (6, 41987), (Start: 7 @41939 has 1 MA's), (12, 41861), (16, 41756), (17, 41744), (23, 41630), (25, 41621),

Gene: Minerva_63 Start: 47255, Stop: 46839, Start Num: 5
Candidate Starts for Minerva_63:
(Start: 5 @47255 has 40 MA's), (6, 47210), (Start: 7 @47162 has 1 MA's), (9, 47117), (14, 46997), (15, 46985), (16, 46982), (18, 46934), (21, 46871), (24, 46856), (25, 46850), (26, 46847),

Gene: Nekros_54 Start: 44682, Stop: 44266, Start Num: 5
Candidate Starts for Nekros_54:
(Start: 5 @44682 has 40 MA's), (6, 44637), (9, 44544), (14, 44424), (15, 44412), (16, 44409), (18, 44361), (21, 44298), (24, 44283), (25, 44277), (26, 44274),

Gene: Nergal_68 Start: 47037, Stop: 47498, Start Num: 4
Candidate Starts for Nergal_68:
(1, 46881), (2, 46938), (3, 46998), (Start: 4 @47037 has 1 MA's), (8, 47211), (10, 47232), (11, 47241), (13, 47283), (16, 47346), (20, 47433), (22, 47463), (23, 47472), (26, 47484),

Gene: Nibley_49 Start: 40311, Stop: 39895, Start Num: 5
Candidate Starts for Nibley_49:

(Start: 5 @40311 has 40 MA's), (6, 40266), (Start: 7 @40218 has 1 MA's), (9, 40173), (14, 40053), (15, 40041), (16, 40038), (18, 39990), (19, 39987), (21, 39927), (24, 39912), (25, 39906), (26, 39903),

Gene: NihilNomen_56 Start: 45925, Stop: 45509, Start Num: 5
Candidate Starts for NihilNomen_56:
(Start: 5 @45925 has 40 MA's), (6, 45880), (Start: 7 @45832 has 1 MA's), (9, 45787), (14, 45667), (15, 45655), (16, 45652), (18, 45604), (21, 45541), (24, 45526), (25, 45520), (26, 45517),

Gene: Odette_55 Start: 44968, Stop: 44552, Start Num: 5
Candidate Starts for Odette_55:
(Start: 5 @44968 has 40 MA's), (6, 44923), (Start: 7 @44875 has 1 MA's), (9, 44830), (14, 44710), (15, 44698), (16, 44695), (18, 44647), (21, 44584), (24, 44569), (25, 44563), (26, 44560),

Gene: Omega_59 Start: 46501, Stop: 46079, Start Num: 5
Candidate Starts for Omega_59:
(Start: 5 @46501 has 40 MA's), (6, 46456), (Start: 7 @46408 has 1 MA's), (12, 46330), (16, 46225), (17, 46213), (23, 46099), (25, 46090),

Gene: Optimus_62 Start: 46840, Stop: 46424, Start Num: 5
Candidate Starts for Optimus_62:
(Start: 5 @46840 has 40 MA's), (6, 46795), (9, 46702), (14, 46582), (15, 46570), (16, 46567), (18, 46519), (21, 46456), (24, 46441), (25, 46435), (26, 46432),

Gene: Phoebus_56 Start: 46126, Stop: 45710, Start Num: 5
Candidate Starts for Phoebus_56:
(Start: 5 @46126 has 40 MA's), (6, 46081), (Start: 7 @46033 has 1 MA's), (9, 45988), (14, 45868), (15, 45856), (16, 45853), (18, 45805), (21, 45742), (24, 45727), (25, 45721), (26, 45718),

Gene: Porcelain_53 Start: 42032, Stop: 41610, Start Num: 5
Candidate Starts for Porcelain_53:
(Start: 5 @42032 has 40 MA's), (6, 41987), (Start: 7 @41939 has 1 MA's), (12, 41861), (16, 41756), (17, 41744), (23, 41630), (25, 41621),

Gene: Pound_57 Start: 47165, Stop: 46842, Start Num: 7
Candidate Starts for Pound_57:
(Start: 5 @47258 has 40 MA's), (6, 47213), (Start: 7 @47165 has 1 MA's), (14, 47000), (15, 46988), (16, 46985), (18, 46937), (21, 46874), (24, 46859), (25, 46853), (26, 46850),

Gene: Rearden_51 Start: 42185, Stop: 41763, Start Num: 5
Candidate Starts for Rearden_51:
(Start: 5 @42185 has 40 MA's), (6, 42140), (Start: 7 @42092 has 1 MA's), (12, 42014), (16, 41909), (17, 41897), (23, 41783), (25, 41774),

Gene: Redno2_54 Start: 42721, Stop: 42305, Start Num: 5
Candidate Starts for Redno2_54:
(Start: 5 @42721 has 40 MA's), (6, 42676), (Start: 7 @42628 has 1 MA's), (9, 42583), (14, 42463), (15, 42451), (16, 42448), (18, 42400), (21, 42337), (24, 42322), (25, 42316), (26, 42313),

Gene: Schatzie_52 Start: 44716, Stop: 44300, Start Num: 5
Candidate Starts for Schatzie_52:
(Start: 5 @44716 has 40 MA's), (6, 44671), (Start: 7 @44623 has 1 MA's), (9, 44578), (14, 44458), (15, 44446), (16, 44443), (18, 44395), (21, 44332), (24, 44317), (25, 44311), (26, 44308),

Gene: Shaboozey_51 Start: 40549, Stop: 40133, Start Num: 5
Candidate Starts for Shaboozey_51:
(Start: 5 @40549 has 40 MA's), (6, 40504), (9, 40411), (14, 40291), (15, 40279), (16, 40276), (18, 40228), (21, 40165), (24, 40150), (25, 40144), (26, 40141),

Gene: Squint_54 Start: 42151, Stop: 41729, Start Num: 5
Candidate Starts for Squint_54:
(Start: 5 @42151 has 40 MA's), (6, 42106), (Start: 7 @42058 has 1 MA's), (12, 41980), (16, 41875), (17, 41863), (23, 41749), (25, 41740),

Gene: Superphikiman_55 Start: 42223, Stop: 41801, Start Num: 5
Candidate Starts for Superphikiman_55:
(Start: 5 @42223 has 40 MA's), (6, 42178), (Start: 7 @42130 has 1 MA's), (12, 42052), (16, 41947), (17, 41935), (23, 41821), (25, 41812),

Gene: Thibault_49 Start: 43034, Stop: 42618, Start Num: 5
Candidate Starts for Thibault_49:
(Start: 5 @43034 has 40 MA's), (6, 42989), (9, 42896), (14, 42776), (15, 42764), (16, 42761), (18, 42713), (21, 42650), (24, 42635), (25, 42629), (26, 42626),

Gene: ThreeRngTarjay_55 Start: 46002, Stop: 45586, Start Num: 5
Candidate Starts for ThreeRngTarjay_55:
(Start: 5 @46002 has 40 MA's), (6, 45957), (Start: 7 @45909 has 1 MA's), (9, 45864), (14, 45744), (15, 45732), (16, 45729), (18, 45681), (21, 45618), (24, 45603), (25, 45597), (26, 45594),

Gene: Wanda_63 Start: 45714, Stop: 45298, Start Num: 5
Candidate Starts for Wanda_63:
(Start: 5 @45714 has 40 MA's), (6, 45669), (Start: 7 @45621 has 1 MA's), (9, 45576), (14, 45456), (15, 45444), (16, 45441), (18, 45393), (21, 45330), (24, 45315), (25, 45309), (26, 45306),

Gene: Xiaokay_50 Start: 42638, Stop: 42222, Start Num: 5
Candidate Starts for Xiaokay_50:
(Start: 5 @42638 has 40 MA's), (6, 42593), (9, 42500), (14, 42380), (15, 42368), (16, 42365), (18, 42317), (21, 42254), (24, 42239), (25, 42233), (26, 42230),

Gene: Yeet_55 Start: 45134, Stop: 44718, Start Num: 5
Candidate Starts for Yeet_55:
(Start: 5 @45134 has 40 MA's), (6, 45089), (9, 44996), (14, 44876), (15, 44864), (16, 44861), (18, 44813), (21, 44750), (24, 44735), (25, 44729), (26, 44726),

Gene: Zelink_55 Start: 46315, Stop: 45899, Start Num: 5
Candidate Starts for Zelink_55:
(Start: 5 @46315 has 40 MA's), (6, 46270), (Start: 7 @46222 has 1 MA's), (9, 46177), (14, 46057), (15, 46045), (16, 46042), (18, 45994), (21, 45931), (24, 45916), (25, 45910), (26, 45907),