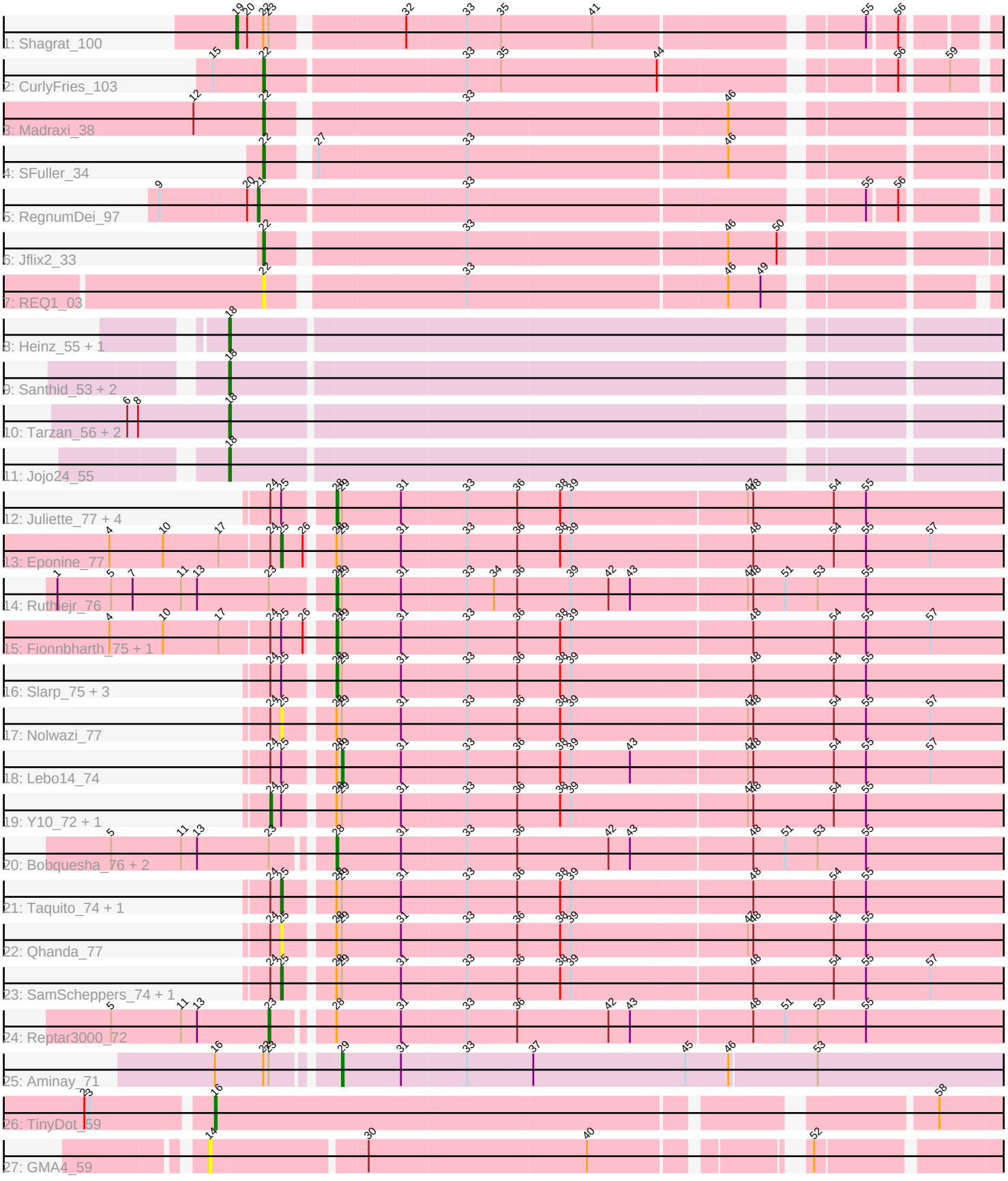
Pham 345867


1: Shagrat_100
2: CurlyFries_103
3: Madraxi_38
4: SFuller_34
5: RegnumDei_97
6: Jflix2_33
7: REQ1_03
8: Heinz_55 + 1
9: Santhid_53 + 2
10: Tarzan_56 + 2
11: Jojo24_55
12: Juliette_77 + 4
13: Eponine_77
14: Ruthiejr_76
15: Fionnbharth_75 + 1
16: Slarp_75 + 3
17: Nolwazi_77
18: Lebo14_74
19: Y10_72 + 1
20: Bobquesha_76 + 2
21: Taquito_74 + 1
22: Qhanda_77
23: SamScheppers_74 + 1
24: Reptar3000_72
25: Aminay_71
26: TinyDot_59
27: GMA4_59

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 345867 Report

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

Pham number 345867 has 45 members, 8 are drafts.

Phages represented in each track:
- Track 1 : Shagrat_100
- Track 2 : CurlyFries_103
- Track 3 : Madraxi_38
- Track 4 : SFuller_34
- Track 5 : RegnumDei_97
- Track 6 : Jflix2_33
- Track 7 : REQ1_03
- Track 8 : Heinz_55, DearBasketball_59
- Track 9 : Santhid_53, DinoNuggs_57, Reyja_58
- Track 10 : Tarzan_56, Hibiscus_56, DonkeyMan_56
- Track 11 : Jojo24_55
- Track 12 : Juliette_77, Malthus_76, JF1_75, Kraw_75, DanSyl44_78
- Track 13 : Eponine_77
- Track 14 : Ruthiejr_76
- Track 15 : Fionnbharth_75, Wintermute_75
- Track 16 : Slarp_75, YasnayaPolyana_74, Cheetobro_75, Mitti_75
- Track 17 : Nolwazi_77
- Track 18 : Lebo14_74
- Track 19 : Y10_72, Y2_72
- Track 20 : Bobquesha_76, Patt_71, MissDaisy_72
- Track 21 : Taquito_74, OmniCritical_75
- Track 22 : Qhanda_77
- Track 23 : SamScheppers_74, Chancellor_75
- Track 24 : Reptar3000_72
- Track 25 : Aminay_71
- Track 26 : TinyDot_59
- Track 27 : GMA4_59

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

The start number called the most often in the published annotations is 28, it was called in 13 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Bobquesha_76, Cheetobro_75, DanSyl44_78, Fionnbharth_75, JF1_75, Juliette_77, Kraw_75, Malthus_76, MissDaisy_72, Mitti_75, Patt_71, Ruthiejr_76, Slarp_75, Wintermute_75, YasnayaPolyana_74,

Genes that have the "Most Annotated" start but do not call it:
• Chancellor_75, Eponine_77, Lebo14_74, Nolwazi_77, OmniCritical_75, Qhanda_77, Reptar3000_72, SamScheppers_74, Taquito_74, Y10_72, Y2_72,

Genes that do not have the "Most Annotated" start:
• Aminay_71, CurlyFries_103, DearBasketball_59, DinoNuggs_57, DonkeyMan_56, GMA4_59, Heinz_55, Hibiscus_56, Jflix2_33, Jojo24_55, Madraxi_38, REQ1_03, RegnumDei_97, Reyja_58, SFuller_34, Santhid_53, Shagrat_100, Tarzan_56, TinyDot_59,

Summary by start number:

Start 14:
• Found in 1 of 45 (2.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA4_59 (singleton),

Start 16:
• Found in 2 of 45 (4.4%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 50.0% of time when present
• Phage (with cluster) where this start called: TinyDot_59 (singleton),

Start 18:
• Found in 9 of 45 (20.0%) of genes in pham
• Manual Annotations of this start: 7 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DearBasketball_59 (DY), DinoNuggs_57 (DY), DonkeyMan_56 (DY), Heinz_55 (DY), Hibiscus_56 (DY), Jojo24_55 (DY), Reyja_58 (DY), Santhid_53 (DY), Tarzan_56 (DY),

Start 19:
• Found in 1 of 45 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shagrat_100 (CF),

Start 21:
• Found in 1 of 45 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RegnumDei_97 (CF),

Start 22:
• Found in 7 of 45 (15.6%) of genes in pham
• Manual Annotations of this start: 4 of 37
• Called 71.4% of time when present

• Phage (with cluster) where this start called: CurlyFries_103 (CF), Jflix2_33 (CF), Madraxi_38 (CF), REQ1_03 (CF), SFuller_34 (CF),

Start 23:
• Found in 7 of 45 (15.6%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Reptar3000_72 (K4),

Start 24:
• Found in 21 of 45 (46.7%) of genes in pham
• Manual Annotations of this start: 2 of 37
• Called 9.5% of time when present
• Phage (with cluster) where this start called: Y10_72 (K4), Y2_72 (K4),

Start 25:
• Found in 21 of 45 (46.7%) of genes in pham
• Manual Annotations of this start: 5 of 37
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Chancellor_75 (K4), Eponine_77 (K4), Nolwazi_77 (K4), OmniCritical_75 (K4), Qhanda_77 (K4), SamScheppers_74 (K4), Taquito_74 (K4),

Start 28:
• Found in 26 of 45 (57.8%) of genes in pham
• Manual Annotations of this start: 13 of 37
• Called 57.7% of time when present
• Phage (with cluster) where this start called: Bobquesha_76 (K4), Cheetobro_75 (K4), DanSyl44_78 (K4), Fionnbharth_75 (K4), JF1_75 (K4), Juliette_77 (K4), Kraw_75 (K4), Malthus_76 (K4), MissDaisy_72 (K4), Mitti_75 (K4), Patt_71 (K4), Ruthiejr_76 (K4), Slarp_75 (K4), Wintermute_75 (K4), YasnayaPolyana_74 (K4),

Start 29:
• Found in 23 of 45 (51.1%) of genes in pham
• Manual Annotations of this start: 2 of 37
• Called 8.7% of time when present
• Phage (with cluster) where this start called: Aminay_71 (K7), Lebo14_74 (K4),

Summary by clusters:

There are 5 clusters represented in this pham: singleton, DY, K7, CF, K4,

Info for manual annotations of cluster CF:
•Start number 19 was manually annotated 1 time for cluster CF.
•Start number 21 was manually annotated 1 time for cluster CF.
•Start number 22 was manually annotated 4 times for cluster CF.

Info for manual annotations of cluster DY:
•Start number 18 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster K4:
•Start number 23 was manually annotated 1 time for cluster K4.
•Start number 24 was manually annotated 2 times for cluster K4.

•Start number 25 was manually annotated 5 times for cluster K4.
•Start number 28 was manually annotated 13 times for cluster K4.
•Start number 29 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K7:
•Start number 29 was manually annotated 1 time for cluster K7.

Gene Information:

Gene: Aminay_71 Start: 46904, Stop: 47275, Start Num: 29
Candidate Starts for Aminay_71:
(Start: 16 @46844 has 1 MA's), (Start: 22 @46871 has 4 MA's), (Start: 23 @46874 has 1 MA's), (Start: 29 @46904 has 2 MA's), (31, 46937), (33, 46973), (37, 47009), (45, 47093), (46, 47117), (53, 47165),

Gene: Bobquesha_76 Start: 46876, Stop: 47250, Start Num: 28
Candidate Starts for Bobquesha_76:
(5, 46762), (11, 46801), (13, 46810), (Start: 23 @46849 has 1 MA's), (Start: 28 @46876 has 13 MA's), (31, 46912), (33, 46948), (36, 46975), (42, 47026), (43, 47038), (48, 47104), (51, 47122), (53, 47140), (55, 47167),

Gene: Chancellor_75 Start: 47966, Stop: 48364, Start Num: 25
Candidate Starts for Chancellor_75:
(Start: 24 @47960 has 2 MA's), (Start: 25 @47966 has 5 MA's), (Start: 28 @47990 has 13 MA's), (Start: 29 @47993 has 2 MA's), (31, 48026), (33, 48062), (36, 48089), (38, 48113), (39, 48119), (48, 48218), (54, 48263), (55, 48281), (57, 48317),

Gene: Cheetobro_75 Start: 47987, Stop: 48361, Start Num: 28
Candidate Starts for Cheetobro_75:
(Start: 24 @47957 has 2 MA's), (Start: 25 @47963 has 5 MA's), (Start: 28 @47987 has 13 MA's), (Start: 29 @47990 has 2 MA's), (31, 48023), (33, 48059), (36, 48086), (38, 48110), (39, 48116), (48, 48215), (54, 48260), (55, 48278),

Gene: CurlyFries_103 Start: 53684, Stop: 54064, Start Num: 22
Candidate Starts for CurlyFries_103:
(15, 53657), (Start: 22 @53684 has 4 MA's), (33, 53792), (35, 53810), (44, 53897), (56, 54011), (59, 54035),

Gene: DanSyl44_78 Start: 49181, Stop: 49555, Start Num: 28
Candidate Starts for DanSyl44_78:
(Start: 24 @49151 has 2 MA's), (Start: 25 @49157 has 5 MA's), (Start: 28 @49181 has 13 MA's), (Start: 29 @49184 has 2 MA's), (31, 49217), (33, 49253), (36, 49280), (38, 49304), (39, 49310), (47, 49406), (48, 49409), (54, 49454), (55, 49472),

Gene: DearBasketball_59 Start: 38448, Stop: 38861, Start Num: 18
Candidate Starts for DearBasketball_59:
(Start: 18 @38448 has 7 MA's),

Gene: DinoNuggs_57 Start: 38090, Stop: 38503, Start Num: 18
Candidate Starts for DinoNuggs_57:
(Start: 18 @38090 has 7 MA's),

Gene: DonkeyMan_56 Start: 37547, Stop: 37960, Start Num: 18
Candidate Starts for DonkeyMan_56:
(6, 37490), (8, 37496), (Start: 18 @37547 has 7 MA's),

Gene: Eponine_77 Start: 48810, Stop: 49208, Start Num: 25
Candidate Starts for Eponine_77:
(4, 48717), (10, 48747), (17, 48777), (Start: 24 @48804 has 2 MA's), (Start: 25 @48810 has 5 MA's), (26, 48822), (Start: 28 @48834 has 13 MA's), (Start: 29 @48837 has 2 MA's), (31, 48870), (33, 48906), (36, 48933), (38, 48957), (39, 48963), (48, 49062), (54, 49107), (55, 49125), (57, 49161),

Gene: Fionnbharth_75 Start: 48232, Stop: 48606, Start Num: 28
Candidate Starts for Fionnbharth_75:
(4, 48115), (10, 48145), (17, 48175), (Start: 24 @48202 has 2 MA's), (Start: 25 @48208 has 5 MA's), (26, 48220), (Start: 28 @48232 has 13 MA's), (Start: 29 @48235 has 2 MA's), (31, 48268), (33, 48304), (36, 48331), (38, 48355), (39, 48361), (48, 48460), (54, 48505), (55, 48523), (57, 48559),

Gene: GMA4_59 Start: 39801, Stop: 40205, Start Num: 14
Candidate Starts for GMA4_59:
(14, 39801), (30, 39882), (40, 40002), (52, 40101),

Gene: Heinz_55 Start: 36477, Stop: 36890, Start Num: 18
Candidate Starts for Heinz_55:
(Start: 18 @36477 has 7 MA's),

Gene: Hibiscus_56 Start: 36444, Stop: 36857, Start Num: 18
Candidate Starts for Hibiscus_56:
(6, 36387), (8, 36393), (Start: 18 @36444 has 7 MA's),

Gene: JF1_75 Start: 48197, Stop: 48571, Start Num: 28
Candidate Starts for JF1_75:
(Start: 24 @48167 has 2 MA's), (Start: 25 @48173 has 5 MA's), (Start: 28 @48197 has 13 MA's), (Start: 29 @48200 has 2 MA's), (31, 48233), (33, 48269), (36, 48296), (38, 48320), (39, 48326), (47, 48422), (48, 48425), (54, 48470), (55, 48488),

Gene: Jflix2_33 Start: 29146, Stop: 28766, Start Num: 22
Candidate Starts for Jflix2_33:
(Start: 22 @29146 has 4 MA's), (33, 29044), (46, 28903), (50, 28876),

Gene: Jojo24_55 Start: 36792, Stop: 37205, Start Num: 18
Candidate Starts for Jojo24_55:
(Start: 18 @36792 has 7 MA's),

Gene: Juliette_77 Start: 48295, Stop: 48669, Start Num: 28
Candidate Starts for Juliette_77:
(Start: 24 @48265 has 2 MA's), (Start: 25 @48271 has 5 MA's), (Start: 28 @48295 has 13 MA's), (Start: 29 @48298 has 2 MA's), (31, 48331), (33, 48367), (36, 48394), (38, 48418), (39, 48424), (47, 48520), (48, 48523), (54, 48568), (55, 48586),

Gene: Kraw_75 Start: 47983, Stop: 48357, Start Num: 28
Candidate Starts for Kraw_75:
(Start: 24 @47953 has 2 MA's), (Start: 25 @47959 has 5 MA's), (Start: 28 @47983 has 13 MA's), (Start: 29 @47986 has 2 MA's), (31, 48019), (33, 48055), (36, 48082), (38, 48106), (39, 48112), (47, 48208), (48, 48211), (54, 48256), (55, 48274),

Gene: Lebo14_74 Start: 48331, Stop: 48702, Start Num: 29
Candidate Starts for Lebo14_74:
(Start: 24 @48298 has 2 MA's), (Start: 25 @48304 has 5 MA's), (Start: 28 @48328 has 13 MA's), (Start: 29 @48331 has 2 MA's), (31, 48364), (33, 48400), (36, 48427), (38, 48451), (39, 48457), (43, 48490), (47, 48553), (48, 48556), (54, 48601), (55, 48619), (57, 48655),

Gene: Madraxi_38 Start: 32109, Stop: 31729, Start Num: 22
Candidate Starts for Madraxi_38:
(12, 32148), (Start: 22 @32109 has 4 MA's), (33, 32007), (46, 31866),

Gene: Malthus_76 Start: 47983, Stop: 48357, Start Num: 28
Candidate Starts for Malthus_76:
(Start: 24 @47953 has 2 MA's), (Start: 25 @47959 has 5 MA's), (Start: 28 @47983 has 13 MA's), (Start: 29 @47986 has 2 MA's), (31, 48019), (33, 48055), (36, 48082), (38, 48106), (39, 48112), (47, 48208), (48, 48211), (54, 48256), (55, 48274),

Gene: MissDaisy_72 Start: 46894, Stop: 47268, Start Num: 28
Candidate Starts for MissDaisy_72:
(5, 46780), (11, 46819), (13, 46828), (Start: 23 @46867 has 1 MA's), (Start: 28 @46894 has 13 MA's), (31, 46930), (33, 46966), (36, 46993), (42, 47044), (43, 47056), (48, 47122), (51, 47140), (53, 47158), (55, 47185),

Gene: Mitti_75 Start: 48138, Stop: 48512, Start Num: 28
Candidate Starts for Mitti_75:
(Start: 24 @48108 has 2 MA's), (Start: 25 @48114 has 5 MA's), (Start: 28 @48138 has 13 MA's), (Start: 29 @48141 has 2 MA's), (31, 48174), (33, 48210), (36, 48237), (38, 48261), (39, 48267), (48, 48366), (54, 48411), (55, 48429),

Gene: Nolwazi_77 Start: 48105, Stop: 48503, Start Num: 25
Candidate Starts for Nolwazi_77:
(Start: 24 @48099 has 2 MA's), (Start: 25 @48105 has 5 MA's), (Start: 28 @48129 has 13 MA's), (Start: 29 @48132 has 2 MA's), (31, 48165), (33, 48201), (36, 48228), (38, 48252), (39, 48258), (47, 48354), (48, 48357), (54, 48402), (55, 48420), (57, 48456),

Gene: OmniCritical_75 Start: 48047, Stop: 48445, Start Num: 25
Candidate Starts for OmniCritical_75:
(Start: 24 @48041 has 2 MA's), (Start: 25 @48047 has 5 MA's), (Start: 28 @48071 has 13 MA's), (Start: 29 @48074 has 2 MA's), (31, 48107), (33, 48143), (36, 48170), (38, 48194), (39, 48200), (48, 48299), (54, 48344), (55, 48362),

Gene: Patt_71 Start: 46615, Stop: 46989, Start Num: 28
Candidate Starts for Patt_71:
(5, 46501), (11, 46540), (13, 46549), (Start: 23 @46588 has 1 MA's), (Start: 28 @46615 has 13 MA's), (31, 46651), (33, 46687), (36, 46714), (42, 46765), (43, 46777), (48, 46843), (51, 46861), (53, 46879), (55, 46906),

Gene: Qhanda_77 Start: 47975, Stop: 48373, Start Num: 25
Candidate Starts for Qhanda_77:
(Start: 24 @47969 has 2 MA's), (Start: 25 @47975 has 5 MA's), (Start: 28 @47999 has 13 MA's), (Start: 29 @48002 has 2 MA's), (31, 48035), (33, 48071), (36, 48098), (38, 48122), (39, 48128), (47, 48224), (48, 48227), (54, 48272), (55, 48290),

Gene: REQ1_03 Start: 925, Stop: 551, Start Num: 22
Candidate Starts for REQ1_03:
(Start: 22 @925 has 4 MA's), (33, 823), (46, 682), (49, 664),

Gene: RegnumDei_97 Start: 54306, Stop: 54689, Start Num: 21
Candidate Starts for RegnumDei_97:
(9, 54252), (20, 54300), (Start: 21 @54306 has 1 MA's), (33, 54417), (55, 54621), (56, 54636),

Gene: Reptar3000_72 Start: 46577, Stop: 46978, Start Num: 23
Candidate Starts for Reptar3000_72:
(5, 46490), (11, 46529), (13, 46538), (Start: 23 @46577 has 1 MA's), (Start: 28 @46604 has 13 MA's), (31, 46640), (33, 46676), (36, 46703), (42, 46754), (43, 46766), (48, 46832), (51, 46850), (53, 46868), (55, 46895),

Gene: Reyja_58 Start: 38090, Stop: 38503, Start Num: 18
Candidate Starts for Reyja_58:
(Start: 18 @38090 has 7 MA's),

Gene: Ruthiejr_76 Start: 48082, Stop: 48456, Start Num: 28
Candidate Starts for Ruthiejr_76:
(1, 47935), (5, 47965), (7, 47977), (11, 48004), (13, 48013), (Start: 23 @48052 has 1 MA's), (Start: 28 @48082 has 13 MA's), (Start: 29 @48085 has 2 MA's), (31, 48118), (33, 48154), (34, 48169), (36, 48181), (39, 48211), (42, 48232), (43, 48244), (47, 48307), (48, 48310), (51, 48328), (53, 48346), (55, 48373),

Gene: SFuller_34 Start: 29505, Stop: 29125, Start Num: 22
Candidate Starts for SFuller_34:
(Start: 22 @29505 has 4 MA's), (27, 29484), (33, 29403), (46, 29262),

Gene: SamScheppers_74 Start: 48438, Stop: 48836, Start Num: 25
Candidate Starts for SamScheppers_74:
(Start: 24 @48432 has 2 MA's), (Start: 25 @48438 has 5 MA's), (Start: 28 @48462 has 13 MA's), (Start: 29 @48465 has 2 MA's), (31, 48498), (33, 48534), (36, 48561), (38, 48585), (39, 48591), (48, 48690), (54, 48735), (55, 48753), (57, 48789),

Gene: Santhid_53 Start: 35574, Stop: 35987, Start Num: 18
Candidate Starts for Santhid_53:
(Start: 18 @35574 has 7 MA's),

Gene: Shagrat_100 Start: 53402, Stop: 53788, Start Num: 19
Candidate Starts for Shagrat_100:
(Start: 19 @53402 has 1 MA's), (20, 53408), (Start: 22 @53417 has 4 MA's), (Start: 23 @53420 has 1 MA's), (32, 53486), (33, 53519), (35, 53537), (41, 53588), (55, 53723), (56, 53738),

Gene: Slarp_75 Start: 47990, Stop: 48364, Start Num: 28
Candidate Starts for Slarp_75:
(Start: 24 @47960 has 2 MA's), (Start: 25 @47966 has 5 MA's), (Start: 28 @47990 has 13 MA's), (Start: 29 @47993 has 2 MA's), (31, 48026), (33, 48062), (36, 48089), (38, 48113), (39, 48119), (48, 48218), (54, 48263), (55, 48281),

Gene: Taquito_74 Start: 48171, Stop: 48569, Start Num: 25
Candidate Starts for Taquito_74:

(Start: 24 @48165 has 2 MA's), (Start: 25 @48171 has 5 MA's), (Start: 28 @48195 has 13 MA's), (Start: 29 @48198 has 2 MA's), (31, 48231), (33, 48267), (36, 48294), (38, 48318), (39, 48324), (48, 48423), (54, 48468), (55, 48486),

Gene: Tarzan_56 Start: 36802, Stop: 37215, Start Num: 18
Candidate Starts for Tarzan_56:
(6, 36745), (8, 36751), (Start: 18 @36802 has 7 MA's),

Gene: TinyDot_59 Start: 37583, Stop: 37999, Start Num: 16
Candidate Starts for TinyDot_59:
(2, 37517), (3, 37520), (Start: 16 @37583 has 1 MA's), (58, 37955),

Gene: Wintermute_75 Start: 48221, Stop: 48595, Start Num: 28
Candidate Starts for Wintermute_75:
(4, 48104), (10, 48134), (17, 48164), (Start: 24 @48191 has 2 MA's), (Start: 25 @48197 has 5 MA's), (26, 48209), (Start: 28 @48221 has 13 MA's), (Start: 29 @48224 has 2 MA's), (31, 48257), (33, 48293), (36, 48320), (38, 48344), (39, 48350), (48, 48449), (54, 48494), (55, 48512), (57, 48548),

Gene: Y10_72 Start: 48167, Stop: 48571, Start Num: 24
Candidate Starts for Y10_72:
(Start: 24 @48167 has 2 MA's), (Start: 25 @48173 has 5 MA's), (Start: 28 @48197 has 13 MA's), (Start: 29 @48200 has 2 MA's), (31, 48233), (33, 48269), (36, 48296), (38, 48320), (39, 48326), (47, 48422), (48, 48425), (54, 48470), (55, 48488),

Gene: Y2_72 Start: 48167, Stop: 48571, Start Num: 24
Candidate Starts for Y2_72:
(Start: 24 @48167 has 2 MA's), (Start: 25 @48173 has 5 MA's), (Start: 28 @48197 has 13 MA's), (Start: 29 @48200 has 2 MA's), (31, 48233), (33, 48269), (36, 48296), (38, 48320), (39, 48326), (47, 48422), (48, 48425), (54, 48470), (55, 48488),

Gene: YasnayaPolyana_74 Start: 48046, Stop: 48420, Start Num: 28
Candidate Starts for YasnayaPolyana_74:
(Start: 24 @48016 has 2 MA's), (Start: 25 @48022 has 5 MA's), (Start: 28 @48046 has 13 MA's), (Start: 29 @48049 has 2 MA's), (31, 48082), (33, 48118), (36, 48145), (38, 48169), (39, 48175), (48, 48274), (54, 48319), (55, 48337),