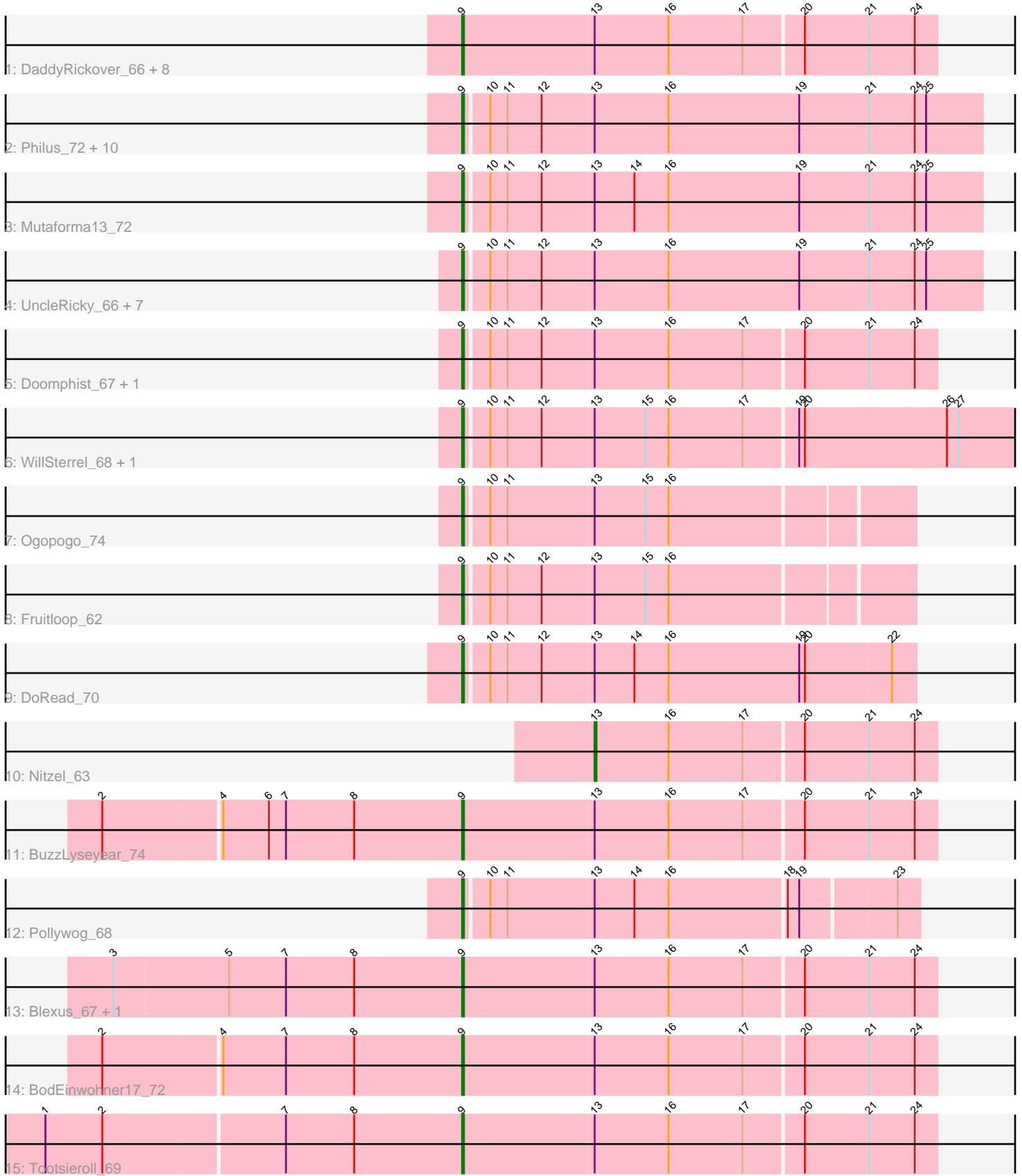# Pham 285701

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 285701 Report

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

Pham number 285701 has 43 members, 5 are drafts.

Phages represented in each track:
• Track 1 : DaddyRickover_66, Lucia_65, Inventum_62, Dorothy_65, Juniper1_68, Sassafras_65, RedBird_65, Stap_64, Che9d_78
• Track 2 : Philus_72, Topiatin_73, Doomslug_75, Hegedechwinu_66, DRBy19_73, VRedHorse_66, EleanorGeorge_70, Chevrolet_71, Gandalph_69, Cornucopia_68, ArcusAngelus_68
• Track 3 : Mutaforma13_72
• Track 4 : UncleRicky_66, Lorde_67, Drago_64, Oksu_72, Llij_63, DirtMcgirt_66, Enby_68, Phatniss_65
• Track 5 : Doomphist_67, Poenanya_67
• Track 6 : WillSterrel_68, IrishSherpFalk_68
• Track 7 : Ogopogo_74
• Track 8 : Fruitloop_62
• Track 9 : DoRead_70
• Track 10 : Nitzel_63
• Track 11 : BuzzLyseyear_74
• Track 12 : Pollywog_68
• Track 13 : Blexus_67, Maravista_70
• Track 14 : BodEinwohner17_72
• Track 15 : Tootsieroll_69

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

The start number called the most often in the published annotations is 9, it was called in 37 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ArcusAngelus_68, Blexus_67, BodEinwohner17_72, BuzzLyseyear_74, Che9d_78, Chevrolet_71, Cornucopia_68, DRBy19_73, DaddyRickover_66, DirtMcgirt_66, DoRead_70, Doomphist_67, Doomslug_75, Dorothy_65, Drago_64, EleanorGeorge_70, Enby_68, Fruitloop_62, Gandalph_69, Hegedechwinu_66, Inventum_62, IrishSherpFalk_68, Juniper1_68, Llij_63, Lorde_67, Lucia_65, Maravista_70, Mutaforma13_72, Ogopogo_74, Oksu_72, Phatniss_65, Philus_72, Poenanya_67, Pollywog_68, RedBird_65, Sassafras_65, Stap_64, Tootsieroll_69, Topiatin_73, UncleRicky_66, VRedHorse_66, WillSterrel_68,

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

Genes that do not have the "Most Annotated" start:
• Nitzel_63,

Summary by start number:

Start 9:
• Found in 42 of 43 (97.7%) of genes in pham
• Manual Annotations of this start: 37 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArcusAngelus_68 (F1), Blexus_67 (F1), BodEinwohner17_72 (F1), BuzzLyseyear_74 (F1), Che9d_78 (F2), Chevrolet_71 (F1), Cornucopia_68 (F1), DRBy19_73 (F1), DaddyRickover_66 (F1), DirtMcgirt_66 (F1), DoRead_70 (F1), Doomphist_67 (F1), Doomslug_75 (F), Dorothy_65 (F1), Drago_64 (F1), EleanorGeorge_70 (F1), Enby_68 (F1), Fruitloop_62 (F1), Gandalph_69 (F1), Hegedechwinu_66 (F1), Inventum_62 (F1), IrishSherpFalk_68 (F1), Juniper1_68 (F1), Llij_63 (F1), Lorde_67 (F1), Lucia_65 (F1), Maravista_70 (F1), Mutaforma13_72 (F1), Ogopogo_74 (F1), Oksu_72 (F1), Phatniss_65 (F1), Philus_72 (F1), Poenanya_67 (F1), Pollywog_68 (F1), RedBird_65 (F1), Sassafras_65 (F1), Stap_64 (F1), Tootsieroll_69 (F1), Topiatin_73 (F1), UncleRicky_66 (F1), VRedHorse_66 (F1), WillSterrel_68 (F1),

Start 13:
• Found in 43 of 43 (100.0%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 2.3% of time when present
• Phage (with cluster) where this start called: Nitzel_63 (F1),

Summary by clusters:

There are 3 clusters represented in this pham: F1, F2, F,

Info for manual annotations of cluster F1:
•Start number 9 was manually annotated 36 times for cluster F1.
•Start number 13 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 9 was manually annotated 1 time for cluster F2.

Gene Information:
Gene: ArcusAngelus_68 Start: 42991, Stop: 43260, Start Num: 9
Candidate Starts for ArcusAngelus_68:
(Start: 9 @42991 has 37 MA's), (10, 43003), (11, 43012), (12, 43030), (Start: 13 @43057 has 1 MA's), (16, 43096), (19, 43165), (21, 43201), (24, 43225), (25, 43231),

Gene: Blexus_67 Start: 45581, Stop: 45826, Start Num: 9

Candidate Starts for Blexus_67:
(3, 45398), (5, 45458), (7, 45488), (8, 45524), (Start: 9 @45581 has 37 MA's), (Start: 13 @45650 has 1 MA's), (16, 45689), (17, 45728), (20, 45758), (21, 45791), (24, 45815),

Gene: BodEinwohner17_72 Start: 46110, Stop: 46355, Start Num: 9
Candidate Starts for BodEinwohner17_72:
(2, 45924), (4, 45984), (7, 46017), (8, 46053), (Start: 9 @46110 has 37 MA's), (Start: 13 @46179 has 1 MA's), (16, 46218), (17, 46257), (20, 46287), (21, 46320), (24, 46344),

Gene: BuzzLyseyear_74 Start: 47580, Stop: 47825, Start Num: 9
Candidate Starts for BuzzLyseyear_74:
(2, 47394), (4, 47454), (6, 47478), (7, 47487), (8, 47523), (Start: 9 @47580 has 37 MA's), (Start: 13 @47649 has 1 MA's), (16, 47688), (17, 47727), (20, 47757), (21, 47790), (24, 47814),

Gene: Che9d_78 Start: 44614, Stop: 44859, Start Num: 9
Candidate Starts for Che9d_78:
(Start: 9 @44614 has 37 MA's), (Start: 13 @44683 has 1 MA's), (16, 44722), (17, 44761), (20, 44791), (21, 44824), (24, 44848),

Gene: Chevrolet_71 Start: 42992, Stop: 43261, Start Num: 9
Candidate Starts for Chevrolet_71:
(Start: 9 @42992 has 37 MA's), (10, 43004), (11, 43013), (12, 43031), (Start: 13 @43058 has 1 MA's), (16, 43097), (19, 43166), (21, 43202), (24, 43226), (25, 43232),

Gene: Cornucopia_68 Start: 42938, Stop: 43207, Start Num: 9
Candidate Starts for Cornucopia_68:
(Start: 9 @42938 has 37 MA's), (10, 42950), (11, 42959), (12, 42977), (Start: 13 @43004 has 1 MA's), (16, 43043), (19, 43112), (21, 43148), (24, 43172), (25, 43178),

Gene: DRBy19_73 Start: 47235, Stop: 47504, Start Num: 9
Candidate Starts for DRBy19_73:
(Start: 9 @47235 has 37 MA's), (10, 47247), (11, 47256), (12, 47274), (Start: 13 @47301 has 1 MA's), (16, 47340), (19, 47409), (21, 47445), (24, 47469), (25, 47475),

Gene: DaddyRickover_66 Start: 43446, Stop: 43691, Start Num: 9
Candidate Starts for DaddyRickover_66:
(Start: 9 @43446 has 37 MA's), (Start: 13 @43515 has 1 MA's), (16, 43554), (17, 43593), (20, 43623), (21, 43656), (24, 43680),

Gene: DirtMcgirt_66 Start: 41587, Stop: 41856, Start Num: 9
Candidate Starts for DirtMcgirt_66:
(Start: 9 @41587 has 37 MA's), (10, 41599), (11, 41608), (12, 41626), (Start: 13 @41653 has 1 MA's), (16, 41692), (19, 41761), (21, 41797), (24, 41821), (25, 41827),

Gene: DoRead_70 Start: 42700, Stop: 42933, Start Num: 9
Candidate Starts for DoRead_70:
(Start: 9 @42700 has 37 MA's), (10, 42712), (11, 42721), (12, 42739), (Start: 13 @42766 has 1 MA's), (14, 42787), (16, 42805), (19, 42874), (20, 42877), (22, 42922),

Gene: Doomphist_67 Start: 43997, Stop: 44239, Start Num: 9
Candidate Starts for Doomphist_67:
(Start: 9 @43997 has 37 MA's), (10, 44009), (11, 44018), (12, 44036), (Start: 13 @44063 has 1 MA's), (16, 44102), (17, 44141), (20, 44171), (21, 44204), (24, 44228),

Gene: Doomslug_75 Start: 43351, Stop: 43620, Start Num: 9
Candidate Starts for Doomslug_75:
(Start: 9 @43351 has 37 MA's), (10, 43363), (11, 43372), (12, 43390), (Start: 13 @43417 has 1 MA's),
(16, 43456), (19, 43525), (21, 43561), (24, 43585), (25, 43591),

Gene: Dorothy_65 Start: 42620, Stop: 42865, Start Num: 9
Candidate Starts for Dorothy_65:
(Start: 9 @42620 has 37 MA's), (Start: 13 @42689 has 1 MA's), (16, 42728), (17, 42767), (20, 42797),
(21, 42830), (24, 42854),

Gene: Drago_64 Start: 41590, Stop: 41859, Start Num: 9
Candidate Starts for Drago_64:
(Start: 9 @41590 has 37 MA's), (10, 41602), (11, 41611), (12, 41629), (Start: 13 @41656 has 1 MA's),
(16, 41695), (19, 41764), (21, 41800), (24, 41824), (25, 41830),

Gene: EleanorGeorge_70 Start: 45365, Stop: 45634, Start Num: 9
Candidate Starts for EleanorGeorge_70:
(Start: 9 @45365 has 37 MA's), (10, 45377), (11, 45386), (12, 45404), (Start: 13 @45431 has 1 MA's),
(16, 45470), (19, 45539), (21, 45575), (24, 45599), (25, 45605),

Gene: Enby_68 Start: 41866, Stop: 42135, Start Num: 9
Candidate Starts for Enby_68:
(Start: 9 @41866 has 37 MA's), (10, 41878), (11, 41887), (12, 41905), (Start: 13 @41932 has 1 MA's),
(16, 41971), (19, 42040), (21, 42076), (24, 42100), (25, 42106),

Gene: Fruitloop_62 Start: 43224, Stop: 43451, Start Num: 9
Candidate Starts for Fruitloop_62:
(Start: 9 @43224 has 37 MA's), (10, 43236), (11, 43245), (12, 43263), (Start: 13 @43290 has 1 MA's),
(15, 43317), (16, 43329),

Gene: Gandalph_69 Start: 43079, Stop: 43348, Start Num: 9
Candidate Starts for Gandalph_69:
(Start: 9 @43079 has 37 MA's), (10, 43091), (11, 43100), (12, 43118), (Start: 13 @43145 has 1 MA's),
(16, 43184), (19, 43253), (21, 43289), (24, 43313), (25, 43319),

Gene: Hegedechwinu_66 Start: 41869, Stop: 42138, Start Num: 9
Candidate Starts for Hegedechwinu_66:
(Start: 9 @41869 has 37 MA's), (10, 41881), (11, 41890), (12, 41908), (Start: 13 @41935 has 1 MA's),
(16, 41974), (19, 42043), (21, 42079), (24, 42103), (25, 42109),

Gene: Inventum_62 Start: 42818, Stop: 43063, Start Num: 9
Candidate Starts for Inventum_62:
(Start: 9 @42818 has 37 MA's), (Start: 13 @42887 has 1 MA's), (16, 42926), (17, 42965), (20, 42995),
(21, 43028), (24, 43052),

Gene: IrishSherpFalk_68 Start: 44580, Stop: 44903, Start Num: 9
Candidate Starts for IrishSherpFalk_68:
(Start: 9 @44580 has 37 MA's), (10, 44592), (11, 44601), (12, 44619), (Start: 13 @44646 has 1 MA's),
(15, 44673), (16, 44685), (17, 44724), (19, 44751), (20, 44754), (26, 44829), (27, 44835),

Gene: Juniper1_68 Start: 44785, Stop: 45030, Start Num: 9
Candidate Starts for Juniper1_68:

(Start: 9 @44785 has 37 MA's), (Start: 13 @44854 has 1 MA's), (16, 44893), (17, 44932), (20, 44962), (21, 44995), (24, 45019),

Gene: Llij_63 Start: 41744, Stop: 42013, Start Num: 9
Candidate Starts for Llij_63:
(Start: 9 @41744 has 37 MA's), (10, 41756), (11, 41765), (12, 41783), (Start: 13 @41810 has 1 MA's), (16, 41849), (19, 41918), (21, 41954), (24, 41978), (25, 41984),

Gene: Lorde_67 Start: 41031, Stop: 41300, Start Num: 9
Candidate Starts for Lorde_67:
(Start: 9 @41031 has 37 MA's), (10, 41043), (11, 41052), (12, 41070), (Start: 13 @41097 has 1 MA's), (16, 41136), (19, 41205), (21, 41241), (24, 41265), (25, 41271),

Gene: Lucia_65 Start: 41190, Stop: 41435, Start Num: 9
Candidate Starts for Lucia_65:
(Start: 9 @41190 has 37 MA's), (Start: 13 @41259 has 1 MA's), (16, 41298), (17, 41337), (20, 41367), (21, 41400), (24, 41424),

Gene: Maravista_70 Start: 47085, Stop: 47330, Start Num: 9
Candidate Starts for Maravista_70:
(3, 46902), (5, 46962), (7, 46992), (8, 47028), (Start: 9 @47085 has 37 MA's), (Start: 13 @47154 has 1 MA's), (16, 47193), (17, 47232), (20, 47262), (21, 47295), (24, 47319),

Gene: Mutaforma13_72 Start: 46032, Stop: 46301, Start Num: 9
Candidate Starts for Mutaforma13_72:
(Start: 9 @46032 has 37 MA's), (10, 46044), (11, 46053), (12, 46071), (Start: 13 @46098 has 1 MA's), (14, 46119), (16, 46137), (19, 46206), (21, 46242), (24, 46266), (25, 46272),

Gene: Nitzel_63 Start: 41918, Stop: 42094, Start Num: 13
Candidate Starts for Nitzel_63:
(Start: 13 @41918 has 1 MA's), (16, 41957), (17, 41996), (20, 42026), (21, 42059), (24, 42083),

Gene: Ogopogo_74 Start: 44524, Stop: 44751, Start Num: 9
Candidate Starts for Ogopogo_74:
(Start: 9 @44524 has 37 MA's), (10, 44536), (11, 44545), (Start: 13 @44590 has 1 MA's), (15, 44617), (16, 44629),

Gene: Oksu_72 Start: 46973, Stop: 47242, Start Num: 9
Candidate Starts for Oksu_72:
(Start: 9 @46973 has 37 MA's), (10, 46985), (11, 46994), (12, 47012), (Start: 13 @47039 has 1 MA's), (16, 47078), (19, 47147), (21, 47183), (24, 47207), (25, 47213),

Gene: Phatniss_65 Start: 42839, Stop: 43108, Start Num: 9
Candidate Starts for Phatniss_65:
(Start: 9 @42839 has 37 MA's), (10, 42851), (11, 42860), (12, 42878), (Start: 13 @42905 has 1 MA's), (16, 42944), (19, 43013), (21, 43049), (24, 43073), (25, 43079),

Gene: Philus_72 Start: 47211, Stop: 47480, Start Num: 9
Candidate Starts for Philus_72:
(Start: 9 @47211 has 37 MA's), (10, 47223), (11, 47232), (12, 47250), (Start: 13 @47277 has 1 MA's), (16, 47316), (19, 47385), (21, 47421), (24, 47445), (25, 47451),

Gene: Poenanya_67 Start: 43997, Stop: 44239, Start Num: 9

Candidate Starts for Poenanya_67:
(Start: 9 @43997 has 37 MA's), (10, 44009), (11, 44018), (12, 44036), (Start: 13 @44063 has 1 MA's), (16, 44102), (17, 44141), (20, 44171), (21, 44204), (24, 44228),

Gene: Pollywog_68 Start: 45277, Stop: 45507, Start Num: 9
Candidate Starts for Pollywog_68:
(Start: 9 @45277 has 37 MA's), (10, 45289), (11, 45298), (Start: 13 @45343 has 1 MA's), (14, 45364), (16, 45382), (18, 45442), (19, 45448), (23, 45496),

Gene: RedBird_65 Start: 42499, Stop: 42744, Start Num: 9
Candidate Starts for RedBird_65:
(Start: 9 @42499 has 37 MA's), (Start: 13 @42568 has 1 MA's), (16, 42607), (17, 42646), (20, 42676), (21, 42709), (24, 42733),

Gene: Sassafras_65 Start: 42817, Stop: 43062, Start Num: 9
Candidate Starts for Sassafras_65:
(Start: 9 @42817 has 37 MA's), (Start: 13 @42886 has 1 MA's), (16, 42925), (17, 42964), (20, 42994), (21, 43027), (24, 43051),

Gene: Stap_64 Start: 42706, Stop: 42951, Start Num: 9
Candidate Starts for Stap_64:
(Start: 9 @42706 has 37 MA's), (Start: 13 @42775 has 1 MA's), (16, 42814), (17, 42853), (20, 42883), (21, 42916), (24, 42940),

Gene: Tootsieroll_69 Start: 46518, Stop: 46763, Start Num: 9
Candidate Starts for Tootsieroll_69:
(1, 46302), (2, 46332), (7, 46425), (8, 46461), (Start: 9 @46518 has 37 MA's), (Start: 13 @46587 has 1 MA's), (16, 46626), (17, 46665), (20, 46695), (21, 46728), (24, 46752),

Gene: Topiatin_73 Start: 45311, Stop: 45580, Start Num: 9
Candidate Starts for Topiatin_73:
(Start: 9 @45311 has 37 MA's), (10, 45323), (11, 45332), (12, 45350), (Start: 13 @45377 has 1 MA's), (16, 45416), (19, 45485), (21, 45521), (24, 45545), (25, 45551),

Gene: UncleRicky_66 Start: 43087, Stop: 43356, Start Num: 9
Candidate Starts for UncleRicky_66:
(Start: 9 @43087 has 37 MA's), (10, 43099), (11, 43108), (12, 43126), (Start: 13 @43153 has 1 MA's), (16, 43192), (19, 43261), (21, 43297), (24, 43321), (25, 43327),

Gene: VRedHorse_66 Start: 41756, Stop: 42025, Start Num: 9
Candidate Starts for VRedHorse_66:
(Start: 9 @41756 has 37 MA's), (10, 41768), (11, 41777), (12, 41795), (Start: 13 @41822 has 1 MA's), (16, 41861), (19, 41930), (21, 41966), (24, 41990), (25, 41996),

Gene: WillSterrel_68 Start: 44613, Stop: 44936, Start Num: 9
Candidate Starts for WillSterrel_68:
(Start: 9 @44613 has 37 MA's), (10, 44625), (11, 44634), (12, 44652), (Start: 13 @44679 has 1 MA's), (15, 44706), (16, 44718), (17, 44757), (19, 44784), (20, 44787), (26, 44862), (27, 44868),