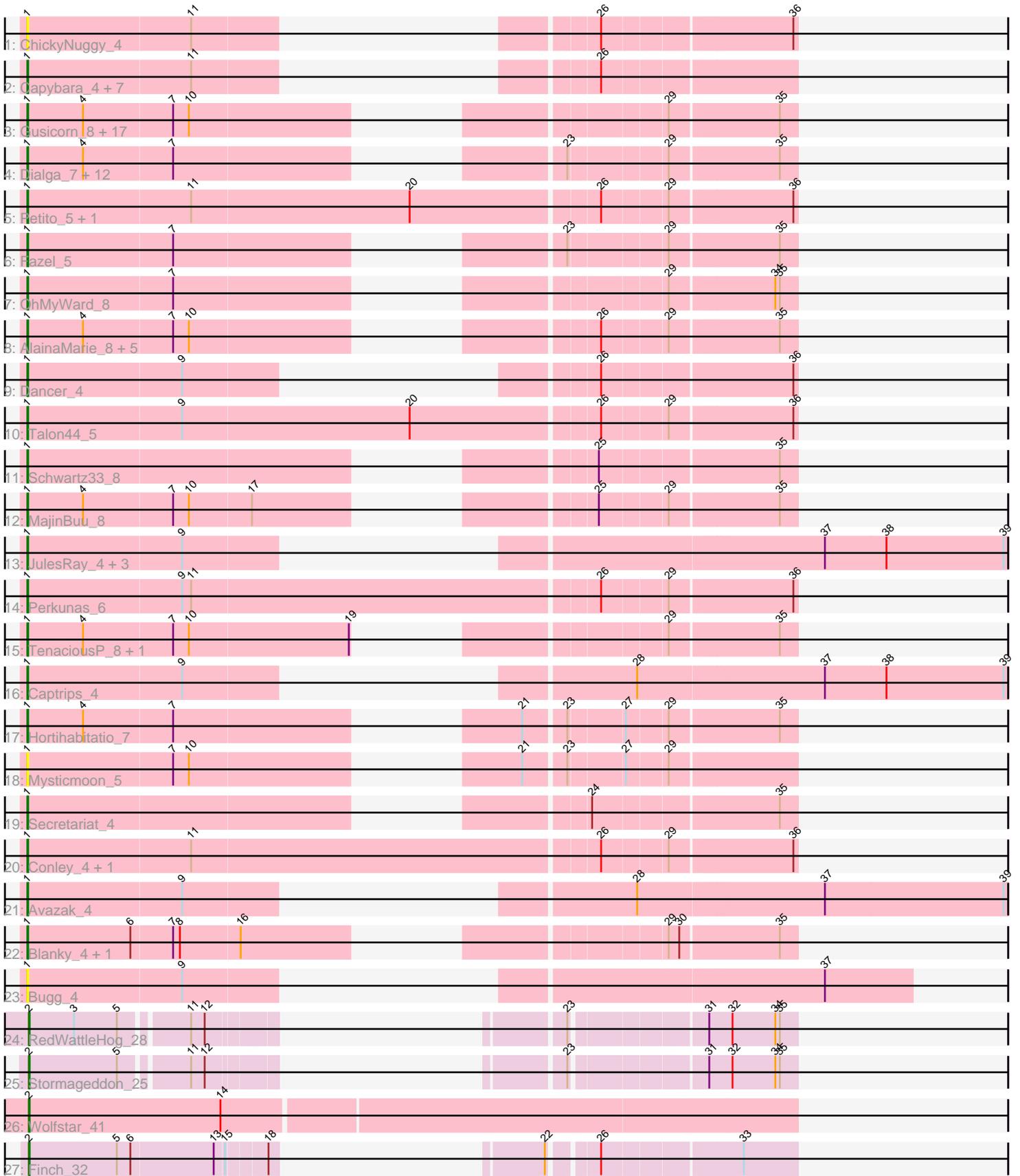# Pham 283744

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 283744 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283744 has 75 members, 16 are drafts.

Phages represented in each track:
- Track 1 : ChickyNuggy_4
- Track 2 : Capybara_4, Magel_4, Odesza_4, NoPickles_4, Kerry_4, Gill_4, Roney_4, Gravy_4
- Track 3 : Gusicorn_8, ShaggyRogers_8, Tonaltzin_9, BetterYeti_8, Burley_8, Eddiemania_7, Citrus_8, Aloe25_8, BluerMoon_8, Vardy_8, Aflac_8, Figliar_8, Nadmeg_8, Duffington_8, Runhaar_8, Rickmore_7, OlgasClover_8, PestoPenguin_8
- Track 4 : Dialga_7, Hydrus_7, Demure_4, Kenosha_5, Arataki_5, Madvan_8, ArtetaBall_7, Crocheter_7, Phepper_8, CWormy_7, Zeph_7, Untouchable_7, Pherobrine_5
- Track 5 : Petito_5, Tairn4Wing_4
- Track 6 : Fazel_5
- Track 7 : OhMyWard_8
- Track 8 : AlainaMarie_8, EndAve_8, Luthien_8, Nithya_8, Chikenjars_8, Glintora_7
- Track 9 : Dancer_4
- Track 10 : Talon44_5
- Track 11 : Schwartz33_8
- Track 12 : MajinBuu_8
- Track 13 : JulesRay_4, Artorias_4, Trufflozitus_4, FortCran_4
- Track 14 : Perkunas_6
- Track 15 : TenaciousP_8, Jodelie19_8
- Track 16 : Captrips_4
- Track 17 : Hortihabitatio_7
- Track 18 : Mysticmoon_5
- Track 19 : Secretariat_4
- Track 20 : Conley_4, Football_4
- Track 21 : Avazak_4
- Track 22 : Blanky_4, Mossy_5
- Track 23 : Bugg_4
- Track 24 : RedWattleHog_28
- Track 25 : Stormageddon_25
- Track 26 : Wolfstar_41
- Track 27 : Finch_32

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

The start number called the most often in the published annotations is 1, it was called in 55 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aflac_8, AlainaMarie_8, Aloe25_8, Arataki_5, ArtetaBall_7, Artorias_4, Avazak_4, BetterYeti_8, Blanky_4, BluerMoon_8, Bugg_4, Burley_8, CWormy_7, Captrips_4, Capybara_4, ChickyNuggy_4, Chikenjars_8, Citrus_8, Conley_4, Crocheter_7, Dancer_4, Demure_4, Dialga_7, Duffington_8, Eddiemania_7, EndAve_8, Fazel_5, Figliar_8, Football_4, FortCran_4, Gill_4, Glintora_7, Gravy_4, Gusicorn_8, Hortihabitatio_7, Hydrus_7, Jodelie19_8, JulesRay_4, Kenosha_5, Kerry_4, Luthien_8, Madvan_8, Magel_4, MajinBuu_8, Mossy_5, Mysticmoon_5, Nadmeg_8, Nithya_8, NoPickles_4, Odesza_4, OhMyWard_8, OlgasClover_8, Perkunas_6, PestoPenguin_8, Petito_5, Phepper_8, Pherobrine_5, Rickmore_7, Roney_4, Runhaar_8, Schwartz33_8, Secretariat_4, ShaggyRogers_8, Tairn4Wing_4, Talon44_5, TenaciousP_8, Tonaltzin_9, Trufflozitus_4, Untouchable_7, Vardy_8, Zeph_7,

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

Genes that do not have the "Most Annotated" start:
• Finch_32, RedWattleHog_28, Stormageddon_25, Wolfstar_41,

Summary by start number:

Start 1:
• Found in 71 of 75 (94.7%) of genes in pham
• Manual Annotations of this start: 55 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aflac_8 (DJ), AlainaMarie_8 (DJ), Aloe25_8 (DJ), Arataki_5 (DJ), ArtetaBall_7 (DJ), Artorias_4 (DJ), Avazak_4 (DJ), BetterYeti_8 (DJ), Blanky_4 (DJ), BluerMoon_8 (DJ), Bugg_4 (DJ), Burley_8 (DJ), CWormy_7 (DJ), Captrips_4 (DJ), Capybara_4 (DJ), ChickyNuggy_4 (DJ), Chikenjars_8 (DJ), Citrus_8 (DJ), Conley_4 (DJ), Crocheter_7 (DJ), Dancer_4 (DJ), Demure_4 (DJ), Dialga_7 (DJ), Duffington_8 (DJ), Eddiemania_7 (DJ), EndAve_8 (DJ), Fazel_5 (DJ), Figliar_8 (DJ), Football_4 (DJ), FortCran_4 (DJ), Gill_4 (DJ), Glintora_7 (DJ), Gravy_4 (DJ), Gusicorn_8 (DJ), Hortihabitatio_7 (DJ), Hydrus_7 (DJ), Jodelie19_8 (DJ), JulesRay_4 (DJ), Kenosha_5 (DJ), Kerry_4 (DJ), Luthien_8 (DJ), Madvan_8 (DJ), Magel_4 (DJ), MajinBuu_8 (DJ), Mossy_5 (DJ), Mysticmoon_5 (DJ), Nadmeg_8 (DJ), Nithya_8 (DJ), NoPickles_4 (DJ), Odesza_4 (DJ), OhMyWard_8 (DJ), OlgasClover_8 (DJ), Perkunas_6 (DJ), PestoPenguin_8 (DJ), Petito_5 (DJ), Phepper_8 (DJ), Pherobrine_5 (DJ), Rickmore_7 (DJ), Roney_4 (DJ), Runhaar_8 (DJ), Schwartz33_8 (DJ), Secretariat_4 (DJ), ShaggyRogers_8 (DJ), Tairn4Wing_4 (DJ), Talon44_5 (DJ), TenaciousP_8 (DJ), Tonaltzin_9 (DJ), Trufflozitus_4 (DJ), Untouchable_7 (DJ), Vardy_8 (DJ), Zeph_7 (DJ),

Start 2:
• Found in 4 of 75 (5.3%) of genes in pham
• Manual Annotations of this start: 4 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finch_32 (singleton), RedWattleHog_28 (DX), Stormageddon_25 (DX), Wolfstar_41 (ED),

Summary by clusters:

There are 4 clusters represented in this pham: ED, singleton, DJ, DX,

Info for manual annotations of cluster DJ:
•Start number 1 was manually annotated 55 times for cluster DJ.

Info for manual annotations of cluster DX:
•Start number 2 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster ED:
•Start number 2 was manually annotated 1 time for cluster ED.

Gene Information:
Gene: Aflac_8 Start: 3585, Stop: 4418, Start Num: 1
Candidate Starts for Aflac_8:
(Start: 1 @3585 has 55 MA's), (4, 3657), (7, 3774), (10, 3795), (29, 4257), (35, 4395),

Gene: AlainaMarie_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for AlainaMarie_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: Aloe25_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Aloe25_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Arataki_5 Start: 1373, Stop: 2206, Start Num: 1
Candidate Starts for Arataki_5:
(Start: 1 @1373 has 55 MA's), (4, 1445), (7, 1562), (23, 1925), (29, 2045), (35, 2183),

Gene: ArtetaBall_7 Start: 2509, Stop: 3342, Start Num: 1
Candidate Starts for ArtetaBall_7:
(Start: 1 @2509 has 55 MA's), (4, 2581), (7, 2698), (23, 3061), (29, 3181), (35, 3319),

Gene: Artorias_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for Artorias_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (37, 1886), (38, 1967), (39, 2123),

Gene: Avazak_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for Avazak_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (28, 1646), (37, 1886), (39, 2123),

Gene: BetterYeti_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for BetterYeti_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Blanky_4 Start: 1427, Stop: 2260, Start Num: 1
Candidate Starts for Blanky_4:

(Start: 1 @1427 has 55 MA's), (6, 1562), (7, 1616), (8, 1625), (16, 1703), (29, 2099), (30, 2111), (35, 2237),

Gene: BluerMoon_8 Start: 3579, Stop: 4412, Start Num: 1
Candidate Starts for BluerMoon_8:
(Start: 1 @3579 has 55 MA's), (4, 3651), (7, 3768), (10, 3789), (29, 4251), (35, 4389),

Gene: Bugg_4 Start: 1145, Stop: 2002, Start Num: 1
Candidate Starts for Bugg_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (37, 1886),

Gene: Burley_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Burley_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: CWormy_7 Start: 2509, Stop: 3342, Start Num: 1
Candidate Starts for CWormy_7:
(Start: 1 @2509 has 55 MA's), (4, 2581), (7, 2698), (23, 3061), (29, 3181), (35, 3319),

Gene: Captrips_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for Captrips_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (28, 1646), (37, 1886), (38, 1967), (39, 2123),

Gene: Capybara_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Capybara_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: ChickyNuggy_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for ChickyNuggy_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592), (36, 1829),

Gene: Chikenjars_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for Chikenjars_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: Citrus_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Citrus_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Conley_4 Start: 1146, Stop: 2129, Start Num: 1
Candidate Starts for Conley_4:
(Start: 1 @1146 has 55 MA's), (11, 1359), (26, 1887), (29, 1968), (36, 2124),

Gene: Crocheter_7 Start: 2509, Stop: 3342, Start Num: 1
Candidate Starts for Crocheter_7:
(Start: 1 @2509 has 55 MA's), (4, 2581), (7, 2698), (23, 3061), (29, 3181), (35, 3319),

Gene: Dancer_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Dancer_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (26, 1592), (36, 1829),

Gene: Demure_4 Start: 1373, Stop: 2206, Start Num: 1
Candidate Starts for Demure_4:

(Start: 1 @1373 has 55 MA's), (4, 1445), (7, 1562), (23, 1925), (29, 2045), (35, 2183),

Gene: Dialga_7 Start: 2509, Stop: 3342, Start Num: 1
Candidate Starts for Dialga_7:
(Start: 1 @2509 has 55 MA's), (4, 2581), (7, 2698), (23, 3061), (29, 3181), (35, 3319),

Gene: Duffington_8 Start: 3561, Stop: 4394, Start Num: 1
Candidate Starts for Duffington_8:
(Start: 1 @3561 has 55 MA's), (4, 3633), (7, 3750), (10, 3771), (29, 4233), (35, 4371),

Gene: Eddiemania_7 Start: 2767, Stop: 3600, Start Num: 1
Candidate Starts for Eddiemania_7:
(Start: 1 @2767 has 55 MA's), (4, 2839), (7, 2956), (10, 2977), (29, 3439), (35, 3577),

Gene: EndAve_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for EndAve_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: Fazel_5 Start: 2306, Stop: 3139, Start Num: 1
Candidate Starts for Fazel_5:
(Start: 1 @2306 has 55 MA's), (7, 2495), (23, 2858), (29, 2978), (35, 3116),

Gene: Figliar_8 Start: 3585, Stop: 4418, Start Num: 1
Candidate Starts for Figliar_8:
(Start: 1 @3585 has 55 MA's), (4, 3657), (7, 3774), (10, 3795), (29, 4257), (35, 4395),

Gene: Finch_32 Start: 27174, Stop: 27863, Start Num: 2
Candidate Starts for Finch_32:
(Start: 2 @27174 has 4 MA's), (5, 27291), (6, 27309), (13, 27417), (15, 27429), (18, 27477), (22, 27567), (26, 27621), (33, 27792),

Gene: Football_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Football_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592), (29, 1673), (36, 1829),

Gene: FortCran_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for FortCran_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (37, 1886), (38, 1967), (39, 2123),

Gene: Gill_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Gill_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: Glintora_7 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for Glintora_7:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: Gravy_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Gravy_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: Gusicorn_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Gusicorn_8:

(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Hortihabitatio_7 Start: 2863, Stop: 3696, Start Num: 1
Candidate Starts for Hortihabitatio_7:
(Start: 1 @2863 has 55 MA's), (4, 2935), (7, 3052), (21, 3364), (23, 3415), (27, 3484), (29, 3535), (35, 3673),

Gene: Hydrus_7 Start: 2767, Stop: 3600, Start Num: 1
Candidate Starts for Hydrus_7:
(Start: 1 @2767 has 55 MA's), (4, 2839), (7, 2956), (23, 3319), (29, 3439), (35, 3577),

Gene: Jodelie19_8 Start: 3579, Stop: 4412, Start Num: 1
Candidate Starts for Jodelie19_8:
(Start: 1 @3579 has 55 MA's), (4, 3651), (7, 3768), (10, 3789), (19, 3999), (29, 4251), (35, 4389),

Gene: JulesRay_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for JulesRay_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (37, 1886), (38, 1967), (39, 2123),

Gene: Kenosha_5 Start: 1368, Stop: 2201, Start Num: 1
Candidate Starts for Kenosha_5:
(Start: 1 @1368 has 55 MA's), (4, 1440), (7, 1557), (23, 1920), (29, 2040), (35, 2178),

Gene: Kerry_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Kerry_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: Luthien_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for Luthien_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: Madvan_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Madvan_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (23, 4134), (29, 4254), (35, 4392),

Gene: Magel_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Magel_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: MajinBuu_8 Start: 3579, Stop: 4412, Start Num: 1
Candidate Starts for MajinBuu_8:
(Start: 1 @3579 has 55 MA's), (4, 3651), (7, 3768), (10, 3789), (17, 3870), (25, 4167), (29, 4251), (35, 4389),

Gene: Mossy_5 Start: 1428, Stop: 2261, Start Num: 1
Candidate Starts for Mossy_5:
(Start: 1 @1428 has 55 MA's), (6, 1563), (7, 1617), (8, 1626), (16, 1704), (29, 2100), (30, 2112), (35, 2238),

Gene: Mysticmoon_5 Start: 1338, Stop: 2171, Start Num: 1
Candidate Starts for Mysticmoon_5:
(Start: 1 @1338 has 55 MA's), (7, 1527), (10, 1548), (21, 1839), (23, 1890), (27, 1959), (29, 2010),

Gene: Nadmeg_8 Start: 3583, Stop: 4416, Start Num: 1
Candidate Starts for Nadmeg_8:
(Start: 1 @3583 has 55 MA's), (4, 3655), (7, 3772), (10, 3793), (29, 4255), (35, 4393),

Gene: Nithya_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for Nithya_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (26, 4167), (29, 4248), (35, 4386),

Gene: NoPickles_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for NoPickles_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: Odesza_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Odesza_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: OhMyWard_8 Start: 3580, Stop: 4413, Start Num: 1
Candidate Starts for OhMyWard_8:
(Start: 1 @3580 has 55 MA's), (7, 3769), (29, 4252), (34, 4384), (35, 4390),

Gene: OlgasClover_8 Start: 3576, Stop: 4409, Start Num: 1
Candidate Starts for OlgasClover_8:
(Start: 1 @3576 has 55 MA's), (4, 3648), (7, 3765), (10, 3786), (29, 4248), (35, 4386),

Gene: Perkunas_6 Start: 1664, Stop: 2647, Start Num: 1
Candidate Starts for Perkunas_6:
(Start: 1 @1664 has 55 MA's), (9, 1865), (11, 1877), (26, 2405), (29, 2486), (36, 2642),

Gene: PestoPenguin_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for PestoPenguin_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Petito_5 Start: 1340, Stop: 2323, Start Num: 1
Candidate Starts for Petito_5:
(Start: 1 @1340 has 55 MA's), (11, 1553), (20, 1841), (26, 2081), (29, 2162), (36, 2318),

Gene: Phepper_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Phepper_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (23, 4134), (29, 4254), (35, 4392),

Gene: Pherobrine_5 Start: 1339, Stop: 2172, Start Num: 1
Candidate Starts for Pherobrine_5:
(Start: 1 @1339 has 55 MA's), (4, 1411), (7, 1528), (23, 1891), (29, 2011), (35, 2149),

Gene: RedWattleHog_28 Start: 28686, Stop: 29360, Start Num: 2
Candidate Starts for RedWattleHog_28:
(Start: 2 @28686 has 4 MA's), (3, 28746), (5, 28803), (11, 28884), (12, 28902), (23, 29085), (31, 29244), (32, 29274), (34, 29331), (35, 29337),

Gene: Rickmore_7 Start: 2144, Stop: 2977, Start Num: 1
Candidate Starts for Rickmore_7:
(Start: 1 @2144 has 55 MA's), (4, 2216), (7, 2333), (10, 2354), (29, 2816), (35, 2954),

Gene: Roney_4 Start: 1145, Stop: 1834, Start Num: 1
Candidate Starts for Roney_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (26, 1592),

Gene: Runhaar_8 Start: 3582, Stop: 4415, Start Num: 1
Candidate Starts for Runhaar_8:
(Start: 1 @3582 has 55 MA's), (4, 3654), (7, 3771), (10, 3792), (29, 4254), (35, 4392),

Gene: Schwartz33_8 Start: 3598, Stop: 4431, Start Num: 1
Candidate Starts for Schwartz33_8:
(Start: 1 @3598 has 55 MA's), (25, 4186), (35, 4408),

Gene: Secretariat_4 Start: 1204, Stop: 2037, Start Num: 1
Candidate Starts for Secretariat_4:
(Start: 1 @1204 has 55 MA's), (24, 1783), (35, 2014),

Gene: ShaggyRogers_8 Start: 3581, Stop: 4414, Start Num: 1
Candidate Starts for ShaggyRogers_8:
(Start: 1 @3581 has 55 MA's), (4, 3653), (7, 3770), (10, 3791), (29, 4253), (35, 4391),

Gene: Stormageddon_25 Start: 28669, Stop: 29343, Start Num: 2
Candidate Starts for Stormageddon_25:
(Start: 2 @28669 has 4 MA's), (5, 28786), (11, 28867), (12, 28885), (23, 29068), (31, 29227), (32, 29257), (34, 29314), (35, 29320),

Gene: Tairn4Wing_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for Tairn4Wing_4:
(Start: 1 @1145 has 55 MA's), (11, 1358), (20, 1646), (26, 1886), (29, 1967), (36, 2123),

Gene: Talon44_5 Start: 1340, Stop: 2323, Start Num: 1
Candidate Starts for Talon44_5:
(Start: 1 @1340 has 55 MA's), (9, 1541), (20, 1841), (26, 2081), (29, 2162), (36, 2318),

Gene: TenaciousP_8 Start: 3579, Stop: 4412, Start Num: 1
Candidate Starts for TenaciousP_8:
(Start: 1 @3579 has 55 MA's), (4, 3651), (7, 3768), (10, 3789), (19, 3999), (29, 4251), (35, 4389),

Gene: Tonaltzin_9 Start: 3579, Stop: 4412, Start Num: 1
Candidate Starts for Tonaltzin_9:
(Start: 1 @3579 has 55 MA's), (4, 3651), (7, 3768), (10, 3789), (29, 4251), (35, 4389),

Gene: Trufflozitus_4 Start: 1145, Stop: 2128, Start Num: 1
Candidate Starts for Trufflozitus_4:
(Start: 1 @1145 has 55 MA's), (9, 1346), (37, 1886), (38, 1967), (39, 2123),

Gene: Untouchable_7 Start: 2508, Stop: 3341, Start Num: 1
Candidate Starts for Untouchable_7:
(Start: 1 @2508 has 55 MA's), (4, 2580), (7, 2697), (23, 3060), (29, 3180), (35, 3318),

Gene: Vardy_8 Start: 3581, Stop: 4414, Start Num: 1
Candidate Starts for Vardy_8:
(Start: 1 @3581 has 55 MA's), (4, 3653), (7, 3770), (10, 3791), (29, 4253), (35, 4391),

Gene: Wolfstar_41 Start: 19173, Stop: 20177, Start Num: 2
Candidate Starts for Wolfstar_41:
(Start: 2 @19173 has 4 MA's), (14, 19428),

Gene: Zeph_7 Start: 2767, Stop: 3600, Start Num: 1
Candidate Starts for Zeph_7:
(Start: 1 @2767 has 55 MA's), (4, 2839), (7, 2956), (23, 3319), (29, 3439), (35, 3577),