Pham 283568

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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 283568 Report

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

Pham number 283568 has 148 members, 15 are drafts.

Phages represented in each track:
• Track 1 : STLscum_63
• Track 2 : JalFarm20_101, Brushbloom_92, Eradicator_84
• Track 3 : Mandlovu_88
• Track 4 : Tootsieroll_86, Phasih_88, Avani_97
• Track 5 : Geralt_84, RitaG_90, MulchExplorer_95, GigiOuiOui_86, Bagrid_68, Leozinho_88, Juice456_90, Deb65_84, Nimbo_83, OldBen_88, PHappiness_91, Rita_92, Ogopogo_97, Daenerys_89, Ruby_87, QuickMath_92
• Track 6 : Byougenkin_89, Firehouse51_86, OwlsT2W_90
• Track 7 : Batiatus_89, Hegedechwinu_91
• Track 8 : ShiLan_92, James_93
• Track 9 : Zizzle_93, Xiaokay_62, Jennelsea_86
• Track 10 : MisterCuddles_90, Beanstalk_87, IbOuu_86, Enzomatic_101, Polka14_95, Bubbles123_85, Girr_89, Sandalphon_89, Empress_91, Fastidio_94, KingMidas_91, Polo2Bam_100, Che8_98, Scottish_91, Gandalph_91, Whatsapiecost_84, Donkeykong_98, Bipolar_93, NewHope4_96, Cornie_88, Wachhund_88, SuperGrey_92
• Track 11 : Tchotchke_85, Mattes_90, RockyHorror_95, GUmbie_90
• Track 12 : Brocalys_81, Crumble_85, LastJedi_81, BobaPhett_91, Cabrinians_86, Saal_87, Gorge_89, Lizziana_91, SwagPigglett_91, BlueCrab_92
• Track 13 : Spikelee_92, MilleniumForce_91, BuzzLyseyear_99
• Track 14 : PhesterPhotato_95
• Track 15 : Guppsters_85, MinionDave_90, Melissauren88_80
• Track 16 : MadMen_97, TDanisky_101
• Track 17 : Oksu_94
• Track 18 : Hlubikazi_88, Strokeseat_88
• Track 19 : Clifton_82
• Track 20 : Ms6_93
• Track 21 : Cheesepuff_97
• Track 22 : DoRead_94
• Track 23 : Hamulus_92
• Track 24 : Quico_98, Florinda_101, Girafales_98
• Track 25 : Bobi_94
• Track 26 : Pippy_87
• Track 27 : Ovechkin_95
• Track 28 : ByChance_79
• Track 29 : Phatniss_89
• Track 30 : Doug_88

- Track 31 : KristaRAM_92
- Track 32 : Ardmore_76
- Track 33 : Ramsey_96, Pollywog_93, SG4_92
- Track 34 : Burwell21_84
- Track 35 : Sparkdehlily_99
- Track 36 : Topiatin_93
- Track 37 : Fancypants_97, Latretium_93
- Track 38 : OlympiaSaint_93, Jarcob_93, Spoonbill_89
- Track 39 : ShroomBoi_89
- Track 40 : Chuckly_84
- Track 41 : Ochi17_97, Llama_98
- Track 42 : Llij_87, Hades_88, Mutaforma13_92
- Track 43 : FreddyB_99
- Track 44 : Emmaloid_94, Slim_94
- Track 45 : Beakin_83
- Track 46 : Koella_82, NormanBulbieJr_88, Priscilla_90
- Track 47 : Dante_89, Sabbb_94
- Track 48 : Mozy_97
- Track 49 : ShowerHandel_89
- Track 50 : DotProduct_85
- Track 51 : Radiance_89
- Track 52 : SilverChicken_98
- Track 53 : Soul22_92
- Track 54 : Che9d_101
- Track 55 : LunaStella_87, TChen_89
- Track 56 : Renaud18_100, DosHalletts_88
- Track 57 : ThetaBob_93
- Track 58 : MulchSalad_94
- Track 59 : BAKA_74
- Track 60 : EricMillard_69, Pacc40_87, Thibault_62, Kimberlium_93, Kersh_95, Pound_70, Optimus_74
- Track 61 : Duke13_72
- Track 62 : Constella_57

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

The start number called the most often in the published annotations is 13, it was called in 92 of the 133 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Avani_97, Bagrid_68, Beakin_83, Beanstalk_87, Bipolar_93, BlueCrab_92, BobaPhett_91, Brocalys_81, Brushbloom_92, Bubbles123_85, BuzzLyseyear_99, Byougenkin_89, Cabrinians_86, Che8_98, Cheesepuff_97, Chuckly_84, Cornie_88, Crumble_85, Daenerys_89, Dante_89, Deb65_84, DoRead_94, Donkeykong_98, DosHalletts_88, Doug_88, Duke13_72, Empress_91, Enzomatic_101, Eradicator_84, Fancypants_97, Fastidio_94, Firehouse51_86, GUmbie_90, Gandalph_91, Geralt_84, GigiOuiOui_86, Girr_89, Gorge_89, Guppsters_85, Hamulus_92, Hlubikazi_88, IbOuu_86, JalFarm20_101, Jarcob_93, Jennelsea_86, Juice456_90, KingMidas_91, Koella_82, LastJedi_81, Latretium_93, Leozinho_88, Lizziana_91, MadMen_97, Mattes_90, Melissauren88_80, MilleniumForce_91, MinionDave_90,

MisterCuddles_90, Ms6_93, MulchExplorer_95, MulchSalad_94, NewHope4_96, Nimbo_83, NormanBulbieJr_88, Ogopogo_97, Oksu_94, OldBen_88, OlympiaSaint_93, OwlsT2W_90, PHappiness_91, Phasih_88, Phatniss_89, Pippy_87, Polka14_95, Polo2Bam_100, Priscilla_90, QuickMath_92, Radiance_89, Renaud18_100, RitaG_90, Rita_92, RockyHorror_95, Ruby_87, STLscum_63, Saal_87, Sabbb_94, Sandalphon_89, Scottish_91, ShowerHandel_89, ShroomBoi_89, SilverChicken_98, Soul22_92, Spikelee_92, Spoonbill_89, Strokeseat_88, SuperGrey_92, SwagPigglett_91, TDanisky_101, Tchotchke_85, ThetaBob_93, Tootsieroll_86, Topiatin_93, Wachhund_88, Whatsapiecost_84, Xiaokay_62, Zizzle_93,

Genes that have the "Most Annotated" start but do not call it:
• Ardmore_76, BAKA_74, Batiatus_89, ByChance_79, Che9d_101, Clifton_82, Constella_57, DotProduct_85, Emmaloid_94, EricMillard_69, Florinda_101, FreddyB_99, Girafales_98, Hades_88, Hegedechwinu_91, James_93, Kersh_95, Kimberlium_93, Llama_98, Llij_87, Mandlovu_88, Mozy_97, Mutaforma13_92, Ochi17_97, Optimus_74, Ovechkin_95, Pacc40_87, PhesterPhotato_95, Pollywog_93, Pound_70, Quico_98, Ramsey_96, SG4_92, ShiLan_92, Slim_94, Sparkdehlily_99, Thibault_62,

Genes that do not have the "Most Annotated" start:
• Bobi_94, Burwell21_84, KristaRAM_92, LunaStella_87, TChen_89,

Summary by start number:

Start 11:
• Found in 145 of 148 (98.0%) of genes in pham
• Manual Annotations of this start: 33 of 133
• Called 23.4% of time when present
• Phage (with cluster) where this start called: Ardmore_76 (F1), BAKA_74 (J), Batiatus_89 (F1), Bobi_94 (F1), Burwell21_84 (F1), ByChance_79 (F1), Che9d_101 (F2), Clifton_82 (F1), Constella_57 (J), DotProduct_85 (F1), EricMillard_69 (J), Florinda_101 (F1), Girafales_98 (F1), Hades_88 (F1), Hegedechwinu_91 (F1), James_93 (F1), Kersh_95 (F1), Kimberlium_93 (F1), Llama_98 (F1), Llij_87 (F1), Mozy_97 (F1), Mutaforma13_92 (F1), Ochi17_97 (F1), Optimus_74 (J), Ovechkin_95 (F1), Pacc40_87 (F1), Pollywog_93 (F1), Pound_70 (J), Quico_98 (F1), Ramsey_96 (F1), SG4_92 (F1), ShiLan_92 (F1), Sparkdehlily_99 (F1), Thibault_62 (J),

Start 13:
• Found in 143 of 148 (96.6%) of genes in pham
• Manual Annotations of this start: 92 of 133
• Called 74.1% of time when present
• Phage (with cluster) where this start called: Avani_97 (F2), Bagrid_68 (J), Beakin_83 (F1), Beanstalk_87 (F1), Bipolar_93 (F1), BlueCrab_92 (F1), BobaPhett_91 (F1), Brocalys_81 (F1), Brushbloom_92 (F1), Bubbles123_85 (F1), BuzzLyseyear_99 (F1), Byougenkin_89 (F1), Cabrinians_86 (F1), Che8_98 (F1), Cheesepuff_97 (F1), Chuckly_84 (F1), Cornie_88 (F5), Crumble_85 (F1), Daenerys_89 (F1), Dante_89 (F1), Deb65_84 (F1), DoRead_94 (F1), Donkeykong_98 (F1), DosHalletts_88 (F1), Doug_88 (F1), Duke13_72 (J), Empress_91 (F1), Enzomatic_101 (F1), Eradicator_84 (F1), Fancypants_97 (F1), Fastidio_94 (F1), Firehouse51_86 (F1), GUmbie_90 (F1), Gandalph_91 (F1), Geralt_84 (F1), GigiOuiOui_86 (F1), Girr_89 (F1), Gorge_89 (F1), Guppsters_85 (F1), Hamulus_92 (F1), Hlubikazi_88 (F1), IbOuu_86 (F1), JalFarm20_101 (F1), Jarcob_93 (F1), Jennelsea_86 (F1), Juice456_90 (F1),

KingMidas_91 (F1), Koella_82 (F1), LastJedi_81 (F1), Latretium_93 (F1), Leozinho_88 (F1), Lizziana_91 (F1), MadMen_97 (F1), Mattes_90 (F1), Melissauren88_80 (F1), MilleniumForce_91 (F1), MinionDave_90 (F1), MisterCuddles_90 (F1), Ms6_93 (F1), MulchExplorer_95 (F1), MulchSalad_94 (F7), NewHope4_96 (F1), Nimbo_83 (F1), NormanBulbieJr_88 (F1), Ogopogo_97 (F1), Oksu_94 (F1), OldBen_88 (F1), OlympiaSaint_93 (F1), OwlsT2W_90 (F1), PHappiness_91 (F1), Phasih_88 (F1), Phatniss_89 (F1), Pippy_87 (F1), Polka14_95 (F1), Polo2Bam_100 (F1), Priscilla_90 (F1), QuickMath_92 (F1), Radiance_89 (F1), Renaud18_100 (F4), RitaG_90 (F1), Rita_92 (F1), RockyHorror_95 (F1), Ruby_87 (F1), STLscum_63 (A1), Saal_87 (F1), Sabbb_94 (F1), Sandalphon_89 (F1), Scottish_91 (F1), ShowerHandel_89 (F1), ShroomBoi_89 (F1), SilverChicken_98 (F2), Soul22_92 (F2), Spikelee_92 (F1), Spoonbill_89 (F1), Strokeseat_88 (F1), SuperGrey_92 (F1), SwagPigglett_91 (F1), TDanisky_101 (F1), Tchotchke_85 (F1), ThetaBob_93 (F4), Tootsieroll_86 (F1), Topiatin_93 (F1), Wachhund_88 (F1), Whatsapiecost_84 (F1), Xiaokay_62 (J), Zizzle_93 (F1),

Start 14:
• Found in 27 of 148 (18.2%) of genes in pham
• Manual Annotations of this start: 7 of 133
• Called 25.9% of time when present
• Phage (with cluster) where this start called: Emmaloid_94 (F1), FreddyB_99 (F1), KristaRAM_92 (F1), LunaStella_87 (F4), PhesterPhotato_95 (F1), Slim_94 (F1), TChen_89 (F4),

Start 15:
• Found in 34 of 148 (23.0%) of genes in pham
• Manual Annotations of this start: 1 of 133
• Called 2.9% of time when present
• Phage (with cluster) where this start called: Mandlovu_88 (F1),

Summary by clusters:

There are 7 clusters represented in this pham: F1, F2, F4, F5, F7, J, A1,

Info for manual annotations of cluster A1:
•Start number 13 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster F1:
•Start number 11 was manually annotated 26 times for cluster F1.
•Start number 13 was manually annotated 85 times for cluster F1.
•Start number 14 was manually annotated 5 times for cluster F1.
•Start number 15 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 11 was manually annotated 1 time for cluster F2.
•Start number 13 was manually annotated 2 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 13 was manually annotated 2 times for cluster F4.
•Start number 14 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 13 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster J:
•Start number 11 was manually annotated 6 times for cluster J.
•Start number 13 was manually annotated 1 time for cluster J.

Gene Information:

Gene: Ardmore_76 Start: 46009, Stop: 46302, Start Num: 11
Candidate Starts for Ardmore_76:
(6, 45904), (Start: 11 @46009 has 33 MA's), (12, 46018), (Start: 13 @46069 has 92 MA's), (27, 46240),
(28, 46264),

Gene: Avani_97 Start: 48825, Stop: 49061, Start Num: 13
Candidate Starts for Avani_97:
(Start: 13 @48825 has 92 MA's), (27, 48996), (28, 49020),

Gene: BAKA_74 Start: 50332, Stop: 49997, Start Num: 11
Candidate Starts for BAKA_74:
(Start: 11 @50332 has 33 MA's), (12, 50323), (Start: 13 @50272 has 92 MA's), (28, 50074),

Gene: Bagrid_68 Start: 49050, Stop: 48775, Start Num: 13
Candidate Starts for Bagrid_68:
(Start: 11 @49110 has 33 MA's), (12, 49101), (Start: 13 @49050 has 92 MA's), (28, 48852),

Gene: Batiatus_89 Start: 51111, Stop: 51407, Start Num: 11
Candidate Starts for Batiatus_89:
(Start: 11 @51111 has 33 MA's), (12, 51120), (Start: 13 @51171 has 92 MA's), (27, 51342), (28,
51366),

Gene: Beakin_83 Start: 47922, Stop: 48218, Start Num: 13
Candidate Starts for Beakin_83:
(Start: 11 @47862 has 33 MA's), (12, 47871), (Start: 13 @47922 has 92 MA's), (27, 48093), (28,
48117), (31, 48186),

Gene: Beanstalk_87 Start: 50321, Stop: 50557, Start Num: 13
Candidate Starts for Beanstalk_87:
(Start: 11 @50261 has 33 MA's), (12, 50270), (Start: 13 @50321 has 92 MA's), (27, 50492), (28,
50516),

Gene: Bipolar_93 Start: 53088, Stop: 53324, Start Num: 13
Candidate Starts for Bipolar_93:
(Start: 11 @53028 has 33 MA's), (12, 53037), (Start: 13 @53088 has 92 MA's), (27, 53259), (28,
53283),

Gene: BlueCrab_92 Start: 52153, Stop: 52485, Start Num: 13
Candidate Starts for BlueCrab_92:
(6, 51988), (Start: 11 @52093 has 33 MA's), (12, 52102), (Start: 13 @52153 has 92 MA's), (Start: 14
@52156 has 7 MA's), (Start: 15 @52165 has 1 MA's), (16, 52168), (17, 52177), (19, 52270), (21,
52276), (23, 52333), (26, 52384), (28, 52444),

Gene: BobaPhett_91 Start: 52885, Stop: 53217, Start Num: 13
Candidate Starts for BobaPhett_91:
(6, 52720), (Start: 11 @52825 has 33 MA's), (12, 52834), (Start: 13 @52885 has 92 MA's), (Start: 14 @52888 has 7 MA's), (Start: 15 @52897 has 1 MA's), (16, 52900), (17, 52909), (19, 53002), (21, 53008), (23, 53065), (26, 53116), (28, 53176),

Gene: Bobi_94 Start: 52628, Stop: 53020, Start Num: 11
Candidate Starts for Bobi_94:
(Start: 11 @52628 has 33 MA's), (12, 52637), (Start: 14 @52691 has 7 MA's), (Start: 15 @52700 has 1 MA's), (17, 52712), (19, 52805), (21, 52811), (23, 52868), (26, 52919), (28, 52979),

Gene: Brocalys_81 Start: 48365, Stop: 48697, Start Num: 13
Candidate Starts for Brocalys_81:
(6, 48200), (Start: 11 @48305 has 33 MA's), (12, 48314), (Start: 13 @48365 has 92 MA's), (Start: 14 @48368 has 7 MA's), (Start: 15 @48377 has 1 MA's), (16, 48380), (17, 48389), (19, 48482), (21, 48488), (23, 48545), (26, 48596), (28, 48656),

Gene: Brushbloom_92 Start: 52366, Stop: 52602, Start Num: 13
Candidate Starts for Brushbloom_92:
(Start: 11 @52306 has 33 MA's), (12, 52315), (Start: 13 @52366 has 92 MA's), (27, 52537), (28, 52561),

Gene: Bubbles123_85 Start: 50944, Stop: 51180, Start Num: 13
Candidate Starts for Bubbles123_85:
(Start: 11 @50884 has 33 MA's), (12, 50893), (Start: 13 @50944 has 92 MA's), (27, 51115), (28, 51139),

Gene: Burwell21_84 Start: 50591, Stop: 50983, Start Num: 11
Candidate Starts for Burwell21_84:
(Start: 11 @50591 has 33 MA's), (12, 50600), (Start: 14 @50654 has 7 MA's), (Start: 15 @50663 has 1 MA's), (16, 50666), (17, 50675), (19, 50768), (21, 50774), (23, 50831), (26, 50882), (28, 50942),

Gene: BuzzLyseyear_99 Start: 54015, Stop: 54335, Start Num: 13
Candidate Starts for BuzzLyseyear_99:
(Start: 11 @53955 has 33 MA's), (12, 53964), (Start: 13 @54015 has 92 MA's), (Start: 14 @54018 has 7 MA's), (Start: 15 @54027 has 1 MA's), (16, 54030), (19, 54132), (21, 54138), (23, 54195), (26, 54246), (28, 54306),

Gene: ByChance_79 Start: 46220, Stop: 46609, Start Num: 11
Candidate Starts for ByChance_79:
(Start: 11 @46220 has 33 MA's), (12, 46229), (Start: 13 @46280 has 92 MA's), (Start: 15 @46289 has 1 MA's), (19, 46394), (21, 46400), (23, 46457), (26, 46508), (28, 46568),

Gene: Byougenkin_89 Start: 48702, Stop: 48938, Start Num: 13
Candidate Starts for Byougenkin_89:
(Start: 11 @48642 has 33 MA's), (12, 48651), (Start: 13 @48702 has 92 MA's), (27, 48873), (28, 48897),

Gene: Cabrinians_86 Start: 50285, Stop: 50617, Start Num: 13
Candidate Starts for Cabrinians_86:
(6, 50120), (Start: 11 @50225 has 33 MA's), (12, 50234), (Start: 13 @50285 has 92 MA's), (Start: 14 @50288 has 7 MA's), (Start: 15 @50297 has 1 MA's), (16, 50300), (17, 50309), (19, 50402), (21, 50408), (23, 50465), (26, 50516), (28, 50576),

Gene: Che8_98 Start: 52901, Stop: 53140, Start Num: 13
Candidate Starts for Che8_98:
(Start: 11 @52841 has 33 MA's), (12, 52850), (Start: 13 @52901 has 92 MA's), (27, 53075), (28, 53099),

Gene: Che9d_101 Start: 50979, Stop: 51272, Start Num: 11
Candidate Starts for Che9d_101:
(Start: 11 @50979 has 33 MA's), (12, 50988), (Start: 13 @51039 has 92 MA's), (27, 51213), (28, 51237),

Gene: Cheesepuff_97 Start: 51357, Stop: 51590, Start Num: 13
Candidate Starts for Cheesepuff_97:
(10, 51210), (Start: 11 @51297 has 33 MA's), (12, 51306), (Start: 13 @51357 has 92 MA's), (28, 51555),

Gene: Chuckly_84 Start: 47404, Stop: 47640, Start Num: 13
Candidate Starts for Chuckly_84:
(6, 47239), (Start: 11 @47344 has 33 MA's), (12, 47353), (Start: 13 @47404 has 92 MA's), (27, 47575), (28, 47599),

Gene: Clifton_82 Start: 49376, Stop: 49672, Start Num: 11
Candidate Starts for Clifton_82:
(Start: 11 @49376 has 33 MA's), (12, 49385), (Start: 13 @49436 has 92 MA's), (20, 49490), (24, 49574), (28, 49631),

Gene: Constella_57 Start: 44626, Stop: 44291, Start Num: 11
Candidate Starts for Constella_57:
(Start: 11 @44626 has 33 MA's), (12, 44617), (Start: 13 @44566 has 92 MA's), (28, 44368),

Gene: Cornie_88 Start: 50388, Stop: 50624, Start Num: 13
Candidate Starts for Cornie_88:
(Start: 11 @50328 has 33 MA's), (12, 50337), (Start: 13 @50388 has 92 MA's), (27, 50559), (28, 50583),

Gene: Crumble_85 Start: 47010, Stop: 47342, Start Num: 13
Candidate Starts for Crumble_85:
(6, 46845), (Start: 11 @46950 has 33 MA's), (12, 46959), (Start: 13 @47010 has 92 MA's), (Start: 14 @47013 has 7 MA's), (Start: 15 @47022 has 1 MA's), (16, 47025), (17, 47034), (19, 47127), (21, 47133), (23, 47190), (26, 47241), (28, 47301),

Gene: Daenerys_89 Start: 52494, Stop: 52730, Start Num: 13
Candidate Starts for Daenerys_89:
(Start: 11 @52434 has 33 MA's), (12, 52443), (Start: 13 @52494 has 92 MA's), (28, 52692),

Gene: Dante_89 Start: 52666, Stop: 52902, Start Num: 13
Candidate Starts for Dante_89:
(2, 52450), (Start: 11 @52606 has 33 MA's), (12, 52615), (Start: 13 @52666 has 92 MA's), (27, 52837), (28, 52861),

Gene: Deb65_84 Start: 50218, Stop: 50454, Start Num: 13
Candidate Starts for Deb65_84:
(Start: 11 @50158 has 33 MA's), (12, 50167), (Start: 13 @50218 has 92 MA's), (28, 50416),

Gene: DoRead_94 Start: 49997, Stop: 50254, Start Num: 13
Candidate Starts for DoRead_94:
(Start: 11 @49937 has 33 MA's), (12, 49946), (Start: 13 @49997 has 92 MA's), (16, 50009), (18, 50081), (24, 50171), (28, 50228),

Gene: Donkeykong_98 Start: 53578, Stop: 53814, Start Num: 13
Candidate Starts for Donkeykong_98:
(Start: 11 @53518 has 33 MA's), (12, 53527), (Start: 13 @53578 has 92 MA's), (27, 53749), (28, 53773),

Gene: DosHalletts_88 Start: 51582, Stop: 51818, Start Num: 13
Candidate Starts for DosHalletts_88:
(Start: 11 @51522 has 33 MA's), (12, 51531), (Start: 13 @51582 has 92 MA's), (27, 51753), (28, 51777),

Gene: DotProduct_85 Start: 49272, Stop: 49568, Start Num: 11
Candidate Starts for DotProduct_85:
(Start: 11 @49272 has 33 MA's), (12, 49281), (Start: 13 @49332 has 92 MA's), (28, 49530),

Gene: Doug_88 Start: 52337, Stop: 52573, Start Num: 13
Candidate Starts for Doug_88:
(4, 52163), (7, 52175), (Start: 11 @52277 has 33 MA's), (12, 52286), (Start: 13 @52337 has 92 MA's), (28, 52535),

Gene: Duke13_72 Start: 49484, Stop: 49209, Start Num: 13
Candidate Starts for Duke13_72:
(Start: 11 @49544 has 33 MA's), (12, 49535), (Start: 13 @49484 has 92 MA's), (28, 49286),

Gene: Emmaloid_94 Start: 51648, Stop: 51977, Start Num: 14
Candidate Starts for Emmaloid_94:
(Start: 11 @51585 has 33 MA's), (12, 51594), (Start: 13 @51645 has 92 MA's), (Start: 14 @51648 has 7 MA's), (Start: 15 @51657 has 1 MA's), (16, 51660), (19, 51762), (21, 51768), (23, 51825), (26, 51876), (28, 51936),

Gene: Empress_91 Start: 51396, Stop: 51632, Start Num: 13
Candidate Starts for Empress_91:
(Start: 11 @51336 has 33 MA's), (12, 51345), (Start: 13 @51396 has 92 MA's), (27, 51567), (28, 51591),

Gene: Enzomatic_101 Start: 50342, Stop: 50572, Start Num: 13
Candidate Starts for Enzomatic_101:
(Start: 11 @50282 has 33 MA's), (12, 50291), (Start: 13 @50342 has 92 MA's), (27, 50513), (28, 50537),

Gene: Eradicator_84 Start: 49799, Stop: 50035, Start Num: 13
Candidate Starts for Eradicator_84:
(Start: 11 @49739 has 33 MA's), (12, 49748), (Start: 13 @49799 has 92 MA's), (27, 49970), (28, 49994),

Gene: EricMillard_69 Start: 49963, Stop: 49628, Start Num: 11
Candidate Starts for EricMillard_69:
(Start: 11 @49963 has 33 MA's), (12, 49954), (Start: 13 @49903 has 92 MA's), (28, 49705),

Gene: Fancypants_97 Start: 53902, Stop: 54138, Start Num: 13
Candidate Starts for Fancypants_97:
(Start: 11 @53842 has 33 MA's), (12, 53851), (Start: 13 @53902 has 92 MA's), (27, 54073), (28, 54097),

Gene: Fastidio_94 Start: 49445, Stop: 49675, Start Num: 13
Candidate Starts for Fastidio_94:
(Start: 11 @49385 has 33 MA's), (12, 49394), (Start: 13 @49445 has 92 MA's), (27, 49616), (28, 49640),

Gene: Firehouse51_86 Start: 52035, Stop: 52259, Start Num: 13
Candidate Starts for Firehouse51_86:
(Start: 11 @51975 has 33 MA's), (12, 51984), (Start: 13 @52035 has 92 MA's), (27, 52206), (28, 52230),

Gene: Florinda_101 Start: 53017, Stop: 53307, Start Num: 11
Candidate Starts for Florinda_101:
(6, 52912), (Start: 11 @53017 has 33 MA's), (12, 53026), (Start: 13 @53077 has 92 MA's), (27, 53248), (28, 53272), (29, 53302),

Gene: FreddyB_99 Start: 51935, Stop: 52264, Start Num: 14
Candidate Starts for FreddyB_99:
(6, 51767), (Start: 11 @51872 has 33 MA's), (12, 51881), (Start: 13 @51932 has 92 MA's), (Start: 14 @51935 has 7 MA's), (Start: 15 @51944 has 1 MA's), (16, 51947), (17, 51956), (19, 52049), (21, 52055), (23, 52112), (26, 52163), (28, 52223),

Gene: GUmbie_90 Start: 51346, Stop: 51582, Start Num: 13
Candidate Starts for GUmbie_90:
(Start: 11 @51286 has 33 MA's), (12, 51295), (Start: 13 @51346 has 92 MA's), (28, 51544),

Gene: Gandalph_91 Start: 48872, Stop: 49105, Start Num: 13
Candidate Starts for Gandalph_91:
(Start: 11 @48812 has 33 MA's), (12, 48821), (Start: 13 @48872 has 92 MA's), (27, 49043), (28, 49067),

Gene: Geralt_84 Start: 50216, Stop: 50452, Start Num: 13
Candidate Starts for Geralt_84:
(Start: 11 @50156 has 33 MA's), (12, 50165), (Start: 13 @50216 has 92 MA's), (28, 50414),

Gene: GigiOuiOui_86 Start: 50349, Stop: 50585, Start Num: 13
Candidate Starts for GigiOuiOui_86:
(Start: 11 @50289 has 33 MA's), (12, 50298), (Start: 13 @50349 has 92 MA's), (28, 50547),

Gene: Girafales_98 Start: 52622, Stop: 52912, Start Num: 11
Candidate Starts for Girafales_98:
(6, 52517), (Start: 11 @52622 has 33 MA's), (12, 52631), (Start: 13 @52682 has 92 MA's), (27, 52853), (28, 52877), (29, 52907),

Gene: Girr_89 Start: 51613, Stop: 51849, Start Num: 13
Candidate Starts for Girr_89:
(Start: 11 @51553 has 33 MA's), (12, 51562), (Start: 13 @51613 has 92 MA's), (27, 51784), (28, 51808),

Gene: Gorge_89 Start: 51559, Stop: 51891, Start Num: 13
Candidate Starts for Gorge_89:
(6, 51394), (Start: 11 @51499 has 33 MA's), (12, 51508), (Start: 13 @51559 has 92 MA's), (Start: 14 @51562 has 7 MA's), (Start: 15 @51571 has 1 MA's), (16, 51574), (17, 51583), (19, 51676), (21, 51682), (23, 51739), (26, 51790), (28, 51850),

Gene: Guppsters_85 Start: 48781, Stop: 49017, Start Num: 13
Candidate Starts for Guppsters_85:
(Start: 11 @48721 has 33 MA's), (12, 48730), (Start: 13 @48781 has 92 MA's), (27, 48952), (28, 48976),

Gene: Hades_88 Start: 48876, Stop: 49172, Start Num: 11
Candidate Starts for Hades_88:
(Start: 11 @48876 has 33 MA's), (12, 48885), (Start: 13 @48936 has 92 MA's), (27, 49107), (28, 49131),

Gene: Hamulus_92 Start: 51197, Stop: 51526, Start Num: 13
Candidate Starts for Hamulus_92:
(Start: 11 @51137 has 33 MA's), (12, 51146), (Start: 13 @51197 has 92 MA's), (Start: 14 @51200 has 7 MA's), (Start: 15 @51209 has 1 MA's), (16, 51212), (19, 51314), (21, 51320), (23, 51377), (26, 51428), (28, 51488),

Gene: Hegedechwinu_91 Start: 50212, Stop: 50508, Start Num: 11
Candidate Starts for Hegedechwinu_91:
(Start: 11 @50212 has 33 MA's), (12, 50221), (Start: 13 @50272 has 92 MA's), (27, 50443), (28, 50467),

Gene: Hlubikazi_88 Start: 49062, Stop: 49385, Start Num: 13
Candidate Starts for Hlubikazi_88:
(Start: 11 @49002 has 33 MA's), (12, 49011), (Start: 13 @49062 has 92 MA's), (Start: 15 @49071 has 1 MA's), (19, 49176), (21, 49182), (23, 49239), (26, 49290), (28, 49350),

Gene: IbOuu_86 Start: 49253, Stop: 49489, Start Num: 13
Candidate Starts for IbOuu_86:
(Start: 11 @49193 has 33 MA's), (12, 49202), (Start: 13 @49253 has 92 MA's), (27, 49424), (28, 49448),

Gene: JalFarm20_101 Start: 53265, Stop: 53501, Start Num: 13
Candidate Starts for JalFarm20_101:
(Start: 11 @53205 has 33 MA's), (12, 53214), (Start: 13 @53265 has 92 MA's), (27, 53436), (28, 53460),

Gene: James_93 Start: 52977, Stop: 53273, Start Num: 11
Candidate Starts for James_93:
(Start: 11 @52977 has 33 MA's), (12, 52986), (Start: 13 @53037 has 92 MA's), (27, 53208), (28, 53232),

Gene: Jarcob_93 Start: 52636, Stop: 52872, Start Num: 13
Candidate Starts for Jarcob_93:
(Start: 11 @52576 has 33 MA's), (12, 52585), (Start: 13 @52636 has 92 MA's), (27, 52807), (28, 52831),

Gene: Jennelsea_86 Start: 49934, Stop: 50173, Start Num: 13
Candidate Starts for Jennelsea_86:
(Start: 11 @49874 has 33 MA's), (12, 49883), (Start: 13 @49934 has 92 MA's), (28, 50132),

Gene: Juice456_90 Start: 51122, Stop: 51358, Start Num: 13
Candidate Starts for Juice456_90:
(Start: 11 @51062 has 33 MA's), (12, 51071), (Start: 13 @51122 has 92 MA's), (28, 51320),

Gene: Kersh_95 Start: 54006, Stop: 54305, Start Num: 11
Candidate Starts for Kersh_95:
(Start: 11 @54006 has 33 MA's), (12, 54015), (Start: 13 @54066 has 92 MA's), (28, 54264),

Gene: Kimberlium_93 Start: 51162, Stop: 51458, Start Num: 11
Candidate Starts for Kimberlium_93:
(Start: 11 @51162 has 33 MA's), (12, 51171), (Start: 13 @51222 has 92 MA's), (28, 51420),

Gene: KingMidas_91 Start: 51627, Stop: 51863, Start Num: 13
Candidate Starts for KingMidas_91:
(Start: 11 @51567 has 33 MA's), (12, 51576), (Start: 13 @51627 has 92 MA's), (27, 51798), (28, 51822),

Gene: Koella_82 Start: 47796, Stop: 48035, Start Num: 13
Candidate Starts for Koella_82:
(3, 47589), (Start: 11 @47736 has 33 MA's), (12, 47745), (Start: 13 @47796 has 92 MA's), (28, 47994),

Gene: KristaRAM_92 Start: 50937, Stop: 51260, Start Num: 14
Candidate Starts for KristaRAM_92:
(Start: 11 @50874 has 33 MA's), (12, 50883), (Start: 14 @50937 has 7 MA's), (Start: 15 @50946 has 1 MA's), (17, 50958), (19, 51051), (21, 51057), (23, 51114), (26, 51165), (28, 51225), (30, 51255),

Gene: LastJedi_81 Start: 48759, Stop: 49091, Start Num: 13
Candidate Starts for LastJedi_81:
(6, 48594), (Start: 11 @48699 has 33 MA's), (12, 48708), (Start: 13 @48759 has 92 MA's), (Start: 14 @48762 has 7 MA's), (Start: 15 @48771 has 1 MA's), (16, 48774), (17, 48783), (19, 48876), (21, 48882), (23, 48939), (26, 48990), (28, 49050),

Gene: Latretium_93 Start: 51905, Stop: 52129, Start Num: 13
Candidate Starts for Latretium_93:
(Start: 11 @51845 has 33 MA's), (12, 51854), (Start: 13 @51905 has 92 MA's), (27, 52076), (28, 52100),

Gene: Leozinho_88 Start: 48663, Stop: 48899, Start Num: 13
Candidate Starts for Leozinho_88:
(Start: 11 @48603 has 33 MA's), (12, 48612), (Start: 13 @48663 has 92 MA's), (28, 48861),

Gene: Lizziana_91 Start: 52008, Stop: 52340, Start Num: 13
Candidate Starts for Lizziana_91:
(6, 51843), (Start: 11 @51948 has 33 MA's), (12, 51957), (Start: 13 @52008 has 92 MA's), (Start: 14 @52011 has 7 MA's), (Start: 15 @52020 has 1 MA's), (16, 52023), (17, 52032), (19, 52125), (21, 52131), (23, 52188), (26, 52239), (28, 52299),

Gene: Llama_98 Start: 52582, Stop: 52878, Start Num: 11
Candidate Starts for Llama_98:

(Start: 11 @52582 has 33 MA's), (12, 52591), (Start: 13 @52642 has 92 MA's), (20, 52696), (24, 52780), (28, 52837),

Gene: Llij_87 Start: 50129, Stop: 50419, Start Num: 11
Candidate Starts for Llij_87:
(Start: 11 @50129 has 33 MA's), (12, 50138), (Start: 13 @50189 has 92 MA's), (27, 50360), (28, 50384),

Gene: LunaStella_87 Start: 49824, Stop: 50147, Start Num: 14
Candidate Starts for LunaStella_87:
(Start: 11 @49761 has 33 MA's), (12, 49770), (Start: 14 @49824 has 7 MA's), (Start: 15 @49833 has 1 MA's), (17, 49845), (19, 49938), (21, 49944), (23, 50001), (26, 50052), (28, 50112),

Gene: MadMen_97 Start: 51947, Stop: 52186, Start Num: 13
Candidate Starts for MadMen_97:
(Start: 11 @51887 has 33 MA's), (12, 51896), (Start: 13 @51947 has 92 MA's), (28, 52145),

Gene: Mandlovu_88 Start: 49013, Stop: 49327, Start Num: 15
Candidate Starts for Mandlovu_88:
(Start: 11 @48944 has 33 MA's), (12, 48953), (Start: 13 @49004 has 92 MA's), (Start: 15 @49013 has 1 MA's), (19, 49118), (21, 49124), (23, 49181), (26, 49232), (28, 49292),

Gene: Mattes_90 Start: 51769, Stop: 52008, Start Num: 13
Candidate Starts for Mattes_90:
(Start: 11 @51709 has 33 MA's), (12, 51718), (Start: 13 @51769 has 92 MA's), (28, 51967),

Gene: Melissauren88_80 Start: 47616, Stop: 47852, Start Num: 13
Candidate Starts for Melissauren88_80:
(Start: 11 @47556 has 33 MA's), (12, 47565), (Start: 13 @47616 has 92 MA's), (27, 47787), (28, 47811),

Gene: MilleniumForce_91 Start: 51910, Stop: 52242, Start Num: 13
Candidate Starts for MilleniumForce_91:
(Start: 11 @51850 has 33 MA's), (12, 51859), (Start: 13 @51910 has 92 MA's), (Start: 14 @51913 has 7 MA's), (Start: 15 @51922 has 1 MA's), (16, 51925), (19, 52027), (21, 52033), (23, 52090), (26, 52141), (28, 52201),

Gene: MinionDave_90 Start: 51739, Stop: 51969, Start Num: 13
Candidate Starts for MinionDave_90:
(Start: 11 @51679 has 33 MA's), (12, 51688), (Start: 13 @51739 has 92 MA's), (27, 51910), (28, 51934),

Gene: MisterCuddles_90 Start: 51613, Stop: 51849, Start Num: 13
Candidate Starts for MisterCuddles_90:
(Start: 11 @51553 has 33 MA's), (12, 51562), (Start: 13 @51613 has 92 MA's), (27, 51784), (28, 51808),

Gene: Mozy_97 Start: 51483, Stop: 51770, Start Num: 11
Candidate Starts for Mozy_97:
(Start: 11 @51483 has 33 MA's), (12, 51492), (Start: 13 @51543 has 92 MA's), (22, 51633), (27, 51717), (28, 51741),

Gene: Ms6_93 Start: 48079, Stop: 48408, Start Num: 13

Candidate Starts for Ms6_93:
(6, 47914), (Start: 11 @48019 has 33 MA's), (12, 48028), (Start: 13 @48079 has 92 MA's), (Start: 14 @48082 has 7 MA's), (Start: 15 @48091 has 1 MA's), (16, 48094), (19, 48196), (21, 48202), (23, 48259), (26, 48310), (28, 48370),

Gene: MulchExplorer_95 Start: 50893, Stop: 51129, Start Num: 13
Candidate Starts for MulchExplorer_95:
(Start: 11 @50833 has 33 MA's), (12, 50842), (Start: 13 @50893 has 92 MA's), (28, 51091),

Gene: MulchSalad_94 Start: 52605, Stop: 52829, Start Num: 13
Candidate Starts for MulchSalad_94:
(5, 52434), (9, 52452), (Start: 11 @52545 has 33 MA's), (12, 52554), (Start: 13 @52605 has 92 MA's), (27, 52776), (28, 52800),

Gene: Mutaforma13_92 Start: 50818, Stop: 51102, Start Num: 11
Candidate Starts for Mutaforma13_92:
(Start: 11 @50818 has 33 MA's), (12, 50827), (Start: 13 @50878 has 92 MA's), (27, 51049), (28, 51073),

Gene: NewHope4_96 Start: 50488, Stop: 50718, Start Num: 13
Candidate Starts for NewHope4_96:
(Start: 11 @50428 has 33 MA's), (12, 50437), (Start: 13 @50488 has 92 MA's), (27, 50659), (28, 50683),

Gene: Nimbo_83 Start: 50218, Stop: 50454, Start Num: 13
Candidate Starts for Nimbo_83:
(Start: 11 @50158 has 33 MA's), (12, 50167), (Start: 13 @50218 has 92 MA's), (28, 50416),

Gene: NormanBulbieJr_88 Start: 51810, Stop: 52049, Start Num: 13
Candidate Starts for NormanBulbieJr_88:
(3, 51603), (Start: 11 @51750 has 33 MA's), (12, 51759), (Start: 13 @51810 has 92 MA's), (28, 52008),

Gene: Ochi17_97 Start: 52177, Stop: 52473, Start Num: 11
Candidate Starts for Ochi17_97:
(Start: 11 @52177 has 33 MA's), (12, 52186), (Start: 13 @52237 has 92 MA's), (20, 52291), (24, 52375), (28, 52432),

Gene: Ogopogo_97 Start: 51107, Stop: 51346, Start Num: 13
Candidate Starts for Ogopogo_97:
(Start: 11 @51047 has 33 MA's), (12, 51056), (Start: 13 @51107 has 92 MA's), (28, 51305),

Gene: Oksu_94 Start: 53367, Stop: 53603, Start Num: 13
Candidate Starts for Oksu_94:
(Start: 11 @53307 has 33 MA's), (12, 53316), (Start: 13 @53367 has 92 MA's), (27, 53538), (28, 53562),

Gene: OldBen_88 Start: 51610, Stop: 51846, Start Num: 13
Candidate Starts for OldBen_88:
(Start: 11 @51550 has 33 MA's), (12, 51559), (Start: 13 @51610 has 92 MA's), (28, 51808),

Gene: OlympiaSaint_93 Start: 51979, Stop: 52215, Start Num: 13
Candidate Starts for OlympiaSaint_93:

(Start: 11 @51919 has 33 MA's), (12, 51928), (Start: 13 @51979 has 92 MA's), (27, 52150), (28, 52174),

Gene: Optimus_74 Start: 50678, Stop: 50343, Start Num: 11
Candidate Starts for Optimus_74:
(Start: 11 @50678 has 33 MA's), (12, 50669), (Start: 13 @50618 has 92 MA's), (28, 50420),

Gene: Ovechkin_95 Start: 52388, Stop: 52684, Start Num: 11
Candidate Starts for Ovechkin_95:
(1, 52226), (Start: 11 @52388 has 33 MA's), (12, 52397), (Start: 13 @52448 has 92 MA's), (20, 52502), (24, 52586), (28, 52643),

Gene: OwlsT2W_90 Start: 50280, Stop: 50516, Start Num: 13
Candidate Starts for OwlsT2W_90:
(Start: 11 @50220 has 33 MA's), (12, 50229), (Start: 13 @50280 has 92 MA's), (27, 50451), (28, 50475),

Gene: PHappiness_91 Start: 52439, Stop: 52675, Start Num: 13
Candidate Starts for PHappiness_91:
(Start: 11 @52379 has 33 MA's), (12, 52388), (Start: 13 @52439 has 92 MA's), (28, 52637),

Gene: Pacc40_87 Start: 52144, Stop: 52443, Start Num: 11
Candidate Starts for Pacc40_87:
(Start: 11 @52144 has 33 MA's), (12, 52153), (Start: 13 @52204 has 92 MA's), (28, 52402),

Gene: Phasih_88 Start: 49971, Stop: 50204, Start Num: 13
Candidate Starts for Phasih_88:
(Start: 13 @49971 has 92 MA's), (27, 50142), (28, 50166),

Gene: Phatniss_89 Start: 50807, Stop: 51136, Start Num: 13
Candidate Starts for Phatniss_89:
(Start: 11 @50747 has 33 MA's), (12, 50756), (Start: 13 @50807 has 92 MA's), (Start: 14 @50810 has 7 MA's), (Start: 15 @50819 has 1 MA's), (16, 50822), (19, 50924), (21, 50930), (23, 50987), (25, 51032), (26, 51038), (28, 51098),

Gene: PhesterPhotato_95 Start: 51458, Stop: 51784, Start Num: 14
Candidate Starts for PhesterPhotato_95:
(6, 51290), (Start: 11 @51395 has 33 MA's), (12, 51404), (Start: 13 @51455 has 92 MA's), (Start: 14 @51458 has 7 MA's), (Start: 15 @51467 has 1 MA's), (16, 51470), (19, 51572), (21, 51578), (23, 51635), (26, 51686), (28, 51746),

Gene: Pippy_87 Start: 49988, Stop: 50320, Start Num: 13
Candidate Starts for Pippy_87:
(Start: 11 @49928 has 33 MA's), (12, 49937), (Start: 13 @49988 has 92 MA's), (Start: 14 @49991 has 7 MA's), (Start: 15 @50000 has 1 MA's), (16, 50003), (17, 50012), (19, 50105), (21, 50111), (23, 50168), (26, 50219), (28, 50279),

Gene: Polka14_95 Start: 53191, Stop: 53427, Start Num: 13
Candidate Starts for Polka14_95:
(Start: 11 @53131 has 33 MA's), (12, 53140), (Start: 13 @53191 has 92 MA's), (27, 53362), (28, 53386),

Gene: Pollywog_93 Start: 52973, Stop: 53269, Start Num: 11

Candidate Starts for Pollywog_93:
(Start: 11 @52973 has 33 MA's), (12, 52982), (Start: 13 @53033 has 92 MA's), (27, 53204), (28, 53228),

Gene: Polo2Bam_100 Start: 50342, Stop: 50572, Start Num: 13
Candidate Starts for Polo2Bam_100:
(Start: 11 @50282 has 33 MA's), (12, 50291), (Start: 13 @50342 has 92 MA's), (27, 50513), (28, 50537),

Gene: Pound_70 Start: 51651, Stop: 51316, Start Num: 11
Candidate Starts for Pound_70:
(Start: 11 @51651 has 33 MA's), (12, 51642), (Start: 13 @51591 has 92 MA's), (28, 51393),

Gene: Priscilla_90 Start: 51908, Stop: 52147, Start Num: 13
Candidate Starts for Priscilla_90:
(3, 51701), (Start: 11 @51848 has 33 MA's), (12, 51857), (Start: 13 @51908 has 92 MA's), (28, 52106),

Gene: QuickMath_92 Start: 51474, Stop: 51710, Start Num: 13
Candidate Starts for QuickMath_92:
(Start: 11 @51414 has 33 MA's), (12, 51423), (Start: 13 @51474 has 92 MA's), (28, 51672),

Gene: Quico_98 Start: 52837, Stop: 53127, Start Num: 11
Candidate Starts for Quico_98:
(6, 52732), (Start: 11 @52837 has 33 MA's), (12, 52846), (Start: 13 @52897 has 92 MA's), (27, 53068), (28, 53092), (29, 53122),

Gene: Radiance_89 Start: 51319, Stop: 51555, Start Num: 13
Candidate Starts for Radiance_89:
(6, 51154), (Start: 11 @51259 has 33 MA's), (12, 51268), (Start: 13 @51319 has 92 MA's), (27, 51490), (28, 51514),

Gene: Ramsey_96 Start: 53396, Stop: 53689, Start Num: 11
Candidate Starts for Ramsey_96:
(Start: 11 @53396 has 33 MA's), (12, 53405), (Start: 13 @53456 has 92 MA's), (27, 53627), (28, 53651),

Gene: Renaud18_100 Start: 51917, Stop: 52153, Start Num: 13
Candidate Starts for Renaud18_100:
(Start: 11 @51857 has 33 MA's), (12, 51866), (Start: 13 @51917 has 92 MA's), (27, 52088), (28, 52112),

Gene: Rita_92 Start: 52822, Stop: 53061, Start Num: 13
Candidate Starts for Rita_92:
(Start: 11 @52762 has 33 MA's), (12, 52771), (Start: 13 @52822 has 92 MA's), (28, 53020),

Gene: RitaG_90 Start: 52241, Stop: 52477, Start Num: 13
Candidate Starts for RitaG_90:
(Start: 11 @52181 has 33 MA's), (12, 52190), (Start: 13 @52241 has 92 MA's), (28, 52439),

Gene: RockyHorror_95 Start: 51354, Stop: 51593, Start Num: 13
Candidate Starts for RockyHorror_95:
(Start: 11 @51294 has 33 MA's), (12, 51303), (Start: 13 @51354 has 92 MA's), (28, 51552),

Gene: Ruby_87 Start: 51614, Stop: 51850, Start Num: 13
Candidate Starts for Ruby_87:
(Start: 11 @51554 has 33 MA's), (12, 51563), (Start: 13 @51614 has 92 MA's), (28, 51812),

Gene: SG4_92 Start: 52390, Stop: 52686, Start Num: 11
Candidate Starts for SG4_92:
(Start: 11 @52390 has 33 MA's), (12, 52399), (Start: 13 @52450 has 92 MA's), (27, 52621), (28, 52645),

Gene: STLscum_63 Start: 41682, Stop: 41449, Start Num: 13
Candidate Starts for STLscum_63:
(Start: 11 @41742 has 33 MA's), (12, 41733), (Start: 13 @41682 has 92 MA's), (28, 41484),

Gene: Saal_87 Start: 51379, Stop: 51711, Start Num: 13
Candidate Starts for Saal_87:
(6, 51214), (Start: 11 @51319 has 33 MA's), (12, 51328), (Start: 13 @51379 has 92 MA's), (Start: 14 @51382 has 7 MA's), (Start: 15 @51391 has 1 MA's), (16, 51394), (17, 51403), (19, 51496), (21, 51502), (23, 51559), (26, 51610), (28, 51670),

Gene: Sabbb_94 Start: 49914, Stop: 50150, Start Num: 13
Candidate Starts for Sabbb_94:
(2, 49698), (Start: 11 @49854 has 33 MA's), (12, 49863), (Start: 13 @49914 has 92 MA's), (27, 50085), (28, 50109),

Gene: Sandalphon_89 Start: 52466, Stop: 52702, Start Num: 13
Candidate Starts for Sandalphon_89:
(Start: 11 @52406 has 33 MA's), (12, 52415), (Start: 13 @52466 has 92 MA's), (27, 52637), (28, 52661),

Gene: Scottish_91 Start: 51066, Stop: 51302, Start Num: 13
Candidate Starts for Scottish_91:
(Start: 11 @51006 has 33 MA's), (12, 51015), (Start: 13 @51066 has 92 MA's), (27, 51237), (28, 51261),

Gene: ShiLan_92 Start: 53432, Stop: 53728, Start Num: 11
Candidate Starts for ShiLan_92:
(Start: 11 @53432 has 33 MA's), (12, 53441), (Start: 13 @53492 has 92 MA's), (27, 53663), (28, 53687),

Gene: ShowerHandel_89 Start: 50218, Stop: 50547, Start Num: 13
Candidate Starts for ShowerHandel_89:
(Start: 11 @50158 has 33 MA's), (12, 50167), (Start: 13 @50218 has 92 MA's), (Start: 15 @50227 has 1 MA's), (19, 50332), (21, 50338), (23, 50395), (26, 50446), (28, 50506),

Gene: ShroomBoi_89 Start: 51000, Stop: 51233, Start Num: 13
Candidate Starts for ShroomBoi_89:
(Start: 11 @50940 has 33 MA's), (12, 50949), (Start: 13 @51000 has 92 MA's), (20, 51054), (24, 51138), (28, 51195),

Gene: SilverChicken_98 Start: 51417, Stop: 51743, Start Num: 13
Candidate Starts for SilverChicken_98:
(Start: 11 @51357 has 33 MA's), (12, 51366), (Start: 13 @51417 has 92 MA's), (Start: 14 @51420 has 7 MA's), (Start: 15 @51429 has 1 MA's), (16, 51432), (19, 51534), (21, 51540), (23, 51597), (26,

51648), (28, 51708),

Gene: Slim_94 Start: 51639, Stop: 51968, Start Num: 14
Candidate Starts for Slim_94:
(Start: 11 @51576 has 33 MA's), (12, 51585), (Start: 13 @51636 has 92 MA's), (Start: 14 @51639 has 7 MA's), (Start: 15 @51648 has 1 MA's), (16, 51651), (19, 51753), (21, 51759), (23, 51816), (26, 51867), (28, 51927),

Gene: Soul22_92 Start: 49297, Stop: 49563, Start Num: 13
Candidate Starts for Soul22_92:
(Start: 11 @49237 has 33 MA's), (12, 49246), (Start: 13 @49297 has 92 MA's), (16, 49309), (18, 49381), (24, 49471), (28, 49528),

Gene: Sparkdehlily_99 Start: 50589, Stop: 50888, Start Num: 11
Candidate Starts for Sparkdehlily_99:
(Start: 11 @50589 has 33 MA's), (12, 50598), (Start: 13 @50649 has 92 MA's), (28, 50847),

Gene: Spikelee_92 Start: 53142, Stop: 53471, Start Num: 13
Candidate Starts for Spikelee_92:
(Start: 11 @53082 has 33 MA's), (12, 53091), (Start: 13 @53142 has 92 MA's), (Start: 14 @53145 has 7 MA's), (Start: 15 @53154 has 1 MA's), (16, 53157), (19, 53259), (21, 53265), (23, 53322), (26, 53373), (28, 53433),

Gene: Spoonbill_89 Start: 49405, Stop: 49641, Start Num: 13
Candidate Starts for Spoonbill_89:
(Start: 11 @49345 has 33 MA's), (12, 49354), (Start: 13 @49405 has 92 MA's), (27, 49576), (28, 49600),

Gene: Strokeseat_88 Start: 49061, Stop: 49384, Start Num: 13
Candidate Starts for Strokeseat_88:
(Start: 11 @49001 has 33 MA's), (12, 49010), (Start: 13 @49061 has 92 MA's), (Start: 15 @49070 has 1 MA's), (19, 49175), (21, 49181), (23, 49238), (26, 49289), (28, 49349),

Gene: SuperGrey_92 Start: 53452, Stop: 53688, Start Num: 13
Candidate Starts for SuperGrey_92:
(Start: 11 @53392 has 33 MA's), (12, 53401), (Start: 13 @53452 has 92 MA's), (27, 53623), (28, 53647),

Gene: SwagPigglett_91 Start: 52515, Stop: 52847, Start Num: 13
Candidate Starts for SwagPigglett_91:
(6, 52350), (Start: 11 @52455 has 33 MA's), (12, 52464), (Start: 13 @52515 has 92 MA's), (Start: 14 @52518 has 7 MA's), (Start: 15 @52527 has 1 MA's), (16, 52530), (17, 52539), (19, 52632), (21, 52638), (23, 52695), (26, 52746), (28, 52806),

Gene: TChen_89 Start: 51775, Stop: 52098, Start Num: 14
Candidate Starts for TChen_89:
(Start: 11 @51712 has 33 MA's), (12, 51721), (Start: 14 @51775 has 7 MA's), (Start: 15 @51784 has 1 MA's), (17, 51796), (19, 51889), (21, 51895), (23, 51952), (26, 52003), (28, 52063),

Gene: TDanisky_101 Start: 50649, Stop: 50888, Start Num: 13
Candidate Starts for TDanisky_101:
(Start: 11 @50589 has 33 MA's), (12, 50598), (Start: 13 @50649 has 92 MA's), (28, 50847),

Gene: Tchotchke_85 Start: 50040, Stop: 50279, Start Num: 13
Candidate Starts for Tchotchke_85:
(Start: 11 @49980 has 33 MA's), (12, 49989), (Start: 13 @50040 has 92 MA's), (28, 50238),

Gene: ThetaBob_93 Start: 50592, Stop: 50918, Start Num: 13
Candidate Starts for ThetaBob_93:
(Start: 11 @50532 has 33 MA's), (12, 50541), (Start: 13 @50592 has 92 MA's), (Start: 15 @50601 has 1 MA's), (17, 50613), (19, 50706), (21, 50712), (23, 50769), (26, 50820), (28, 50880),

Gene: Thibault_62 Start: 46268, Stop: 45933, Start Num: 11
Candidate Starts for Thibault_62:
(Start: 11 @46268 has 33 MA's), (12, 46259), (Start: 13 @46208 has 92 MA's), (28, 46010),

Gene: Tootsieroll_86 Start: 51876, Stop: 52112, Start Num: 13
Candidate Starts for Tootsieroll_86:
(Start: 13 @51876 has 92 MA's), (27, 52047), (28, 52071),

Gene: Topiatin_93 Start: 52154, Stop: 52483, Start Num: 13
Candidate Starts for Topiatin_93:
(8, 52001), (Start: 11 @52094 has 33 MA's), (12, 52103), (Start: 13 @52154 has 92 MA's), (Start: 15 @52163 has 1 MA's), (17, 52175), (19, 52268), (21, 52274), (23, 52331), (26, 52382), (28, 52442),

Gene: Wachhund_88 Start: 48256, Stop: 48486, Start Num: 13
Candidate Starts for Wachhund_88:
(Start: 11 @48196 has 33 MA's), (12, 48205), (Start: 13 @48256 has 92 MA's), (27, 48427), (28, 48451),

Gene: Whatsapiecost_84 Start: 46263, Stop: 46499, Start Num: 13
Candidate Starts for Whatsapiecost_84:
(Start: 11 @46203 has 33 MA's), (12, 46212), (Start: 13 @46263 has 92 MA's), (27, 46434), (28, 46458),

Gene: Xiaokay_62 Start: 46427, Stop: 46152, Start Num: 13
Candidate Starts for Xiaokay_62:
(Start: 11 @46487 has 33 MA's), (12, 46478), (Start: 13 @46427 has 92 MA's), (28, 46229),

Gene: Zizzle_93 Start: 52799, Stop: 53038, Start Num: 13
Candidate Starts for Zizzle_93:
(Start: 11 @52739 has 33 MA's), (12, 52748), (Start: 13 @52799 has 92 MA's), (28, 52997),