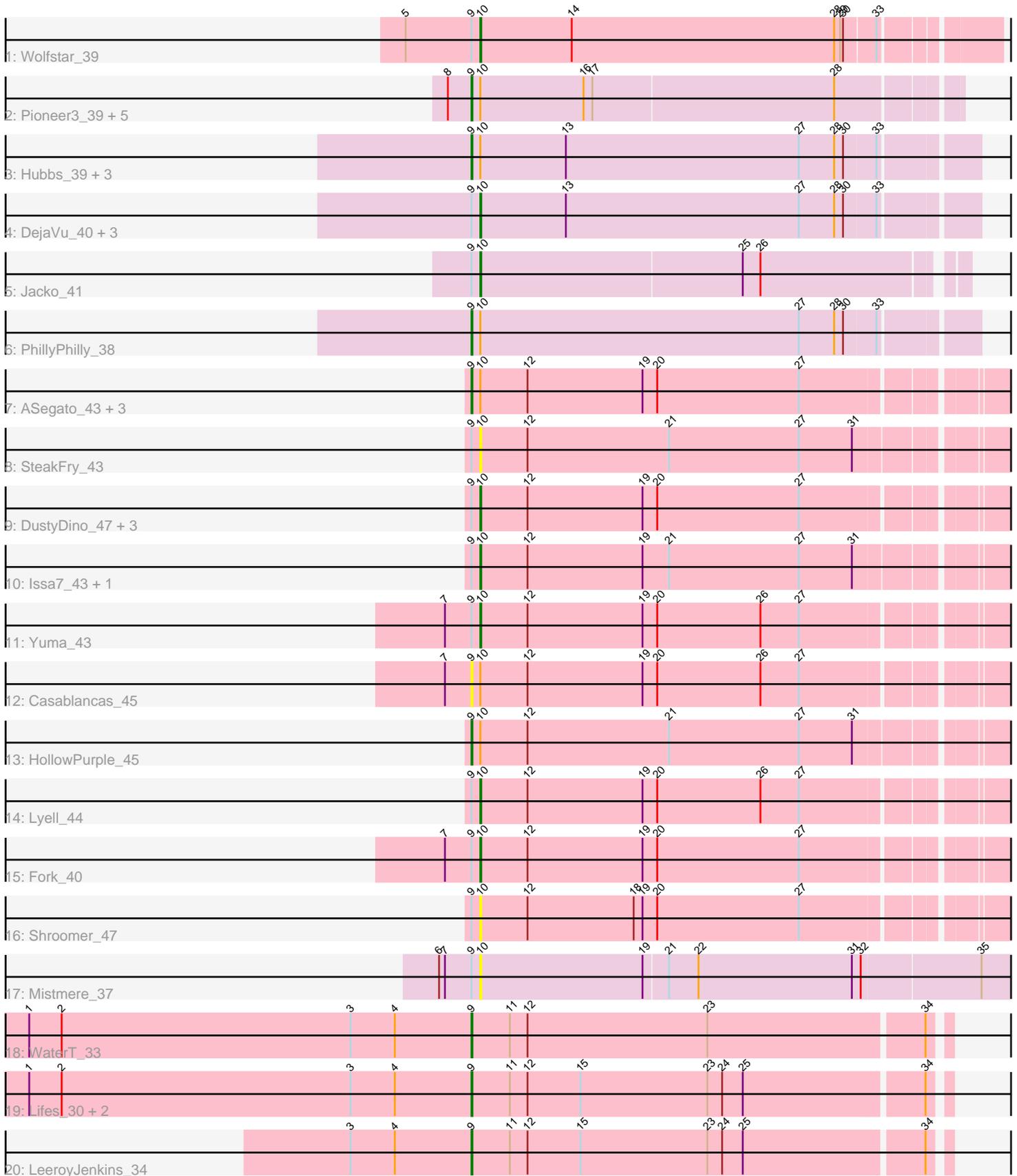# Pham 291315

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 291315 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 291315 has 40 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Wolfstar_39
• Track 2 : Pioneer3_39, Hortus1_39, OlinDD_39, Platte_39, Tandem_39, Alleb_40
• Track 3 : Hubbs_39, Roman_39, Lupine_37, Pavlo_37
• Track 4 : DejaVu_40, Solimine_39, Saradis_39, Uterion_41
• Track 5 : Jacko_41
• Track 6 : PhillyPhilly_38
• Track 7 : ASegato_43, RunningBrook_45, Erenyeager_44, StevieWelch_44
• Track 8 : SteakFry_43
• Track 9 : DustyDino_47, Deschain_45, Welcome_45, Necrophoxinus_46
• Track 10 : Issa7_43, Musetta_44
• Track 11 : Yuma_43
• Track 12 : Casablancas_45
• Track 13 : HollowPurple_45
• Track 14 : Lyell_44
• Track 15 : Fork_40
• Track 16 : Shroomer_47
• Track 17 : Mistmere_37
• Track 18 : WaterT_33
• Track 19 : Lifes_30, BarnCat_28, Cassita_34
• Track 20 : LeeroyJenkins_34

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 21 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASegato_43, Alleb_40, BarnCat_28, Casablancas_45, Cassita_34, Erenyeager_44, HollowPurple_45, Hortus1_39, Hubbs_39, LeeroyJenkins_34, Lifes_30, Lupine_37, OlinDD_39, Pavlo_37, PhillyPhilly_38, Pioneer3_39, Platte_39, Roman_39,

RunningBrook_45, StevieWelch_44, Tandem_39, WaterT_33,

Genes that have the "Most Annotated" start but do not call it:
• DejaVu_40, Deschain_45, DustyDino_47, Fork_40, Issa7_43, Jacko_41, Lyell_44, Mistmere_37, Musetta_44, Necrophoxinus_46, Saradis_39, Shroomer_47, Solimine_39, SteakFry_43, Uterion_41, Welcome_45, Wolfstar_39, Yuma_43,

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

Summary by start number:

Start 9:
• Found in 40 of 40 (100.0%) of genes in pham
• Manual Annotations of this start: 21 of 31
• Called 55.0% of time when present
• Phage (with cluster) where this start called: ASegato_43 (ED2), Alleb_40 (ED1), BarnCat_28 (GB), Casablancas_45 (ED2), Cassita_34 (GB), Erenyeager_44 (ED2), HollowPurple_45 (ED2), Hortus1_39 (ED1), Hubbs_39 (ED1), LeeroyJenkins_34 (GB), Lifes_30 (GB), Lupine_37 (ED1), OlinDD_39 (ED1), Pavlo_37 (ED1), PhillyPhilly_38 (ED1), Pioneer3_39 (ED1), Platte_39 (ED1), Roman_39 (ED1), RunningBrook_45 (ED2), StevieWelch_44 (ED2), Tandem_39 (ED1), WaterT_33 (GB),

Start 10:
• Found in 35 of 40 (87.5%) of genes in pham
• Manual Annotations of this start: 10 of 31
• Called 51.4% of time when present
• Phage (with cluster) where this start called: DejaVu_40 (ED1), Deschain_45 (ED2), DustyDino_47 (ED2), Fork_40 (ED2), Issa7_43 (ED2), Jacko_41 (ED1), Lyell_44 (ED2), Mistmere_37 (ED3), Musetta_44 (ED2), Necrophoxinus_46 (ED2), Saradis_39 (ED1), Shroomer_47 (ED2), Solimine_39 (ED1), SteakFry_43 (ED2), Uterion_41 (ED1), Welcome_45 (ED2), Wolfstar_39 (ED), Yuma_43 (ED2),

Summary by clusters:

There are 5 clusters represented in this pham: ED2, ED, ED1, GB, ED3,

Info for manual annotations of cluster ED:
•Start number 10 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:
•Start number 9 was manually annotated 11 times for cluster ED1.
•Start number 10 was manually annotated 2 times for cluster ED1.

Info for manual annotations of cluster ED2:
•Start number 9 was manually annotated 5 times for cluster ED2.
•Start number 10 was manually annotated 7 times for cluster ED2.

Info for manual annotations of cluster GB:
•Start number 9 was manually annotated 5 times for cluster GB.

Gene Information:

Gene: ASegato_43 Start: 19037, Stop: 19561, Start Num: 9
Candidate Starts for ASegato_43:
(Start: 9 @19037 has 21 MA's), (Start: 10 @19046 has 10 MA's), (12, 19094), (19, 19211), (20, 19226),
(27, 19370),

Gene: Alleb_40 Start: 20983, Stop: 21459, Start Num: 9
Candidate Starts for Alleb_40:
(8, 20959), (Start: 9 @20983 has 21 MA's), (Start: 10 @20992 has 10 MA's), (16, 21097), (17, 21106),
(28, 21349),

Gene: BarnCat_28 Start: 15320, Stop: 15790, Start Num: 9
Candidate Starts for BarnCat_28:
(1, 14870), (2, 14903), (3, 15197), (4, 15242), (Start: 9 @15320 has 21 MA's), (11, 15359), (12, 15377),
(15, 15431), (23, 15560), (24, 15575), (25, 15596), (34, 15773),

Gene: Casablancas_45 Start: 19121, Stop: 19645, Start Num: 9
Candidate Starts for Casablancas_45:
(7, 19094), (Start: 9 @19121 has 21 MA's), (Start: 10 @19130 has 10 MA's), (12, 19178), (19, 19295),
(20, 19310), (26, 19415), (27, 19454),

Gene: Cassita_34 Start: 17696, Stop: 18166, Start Num: 9
Candidate Starts for Cassita_34:
(1, 17246), (2, 17279), (3, 17573), (4, 17618), (Start: 9 @17696 has 21 MA's), (11, 17735), (12, 17753),
(15, 17807), (23, 17936), (24, 17951), (25, 17972), (34, 18149),

Gene: DejaVu_40 Start: 18319, Stop: 18810, Start Num: 10
Candidate Starts for DejaVu_40:
(Start: 9 @18310 has 21 MA's), (Start: 10 @18319 has 10 MA's), (13, 18406), (27, 18643), (28, 18679),
(30, 18688), (33, 18718),

Gene: Deschain_45 Start: 19794, Stop: 20309, Start Num: 10
Candidate Starts for Deschain_45:
(Start: 9 @19785 has 21 MA's), (Start: 10 @19794 has 10 MA's), (12, 19842), (19, 19959), (20, 19974),
(27, 20118),

Gene: DustyDino_47 Start: 19985, Stop: 20500, Start Num: 10
Candidate Starts for DustyDino_47:
(Start: 9 @19976 has 21 MA's), (Start: 10 @19985 has 10 MA's), (12, 20033), (19, 20150), (20, 20165),
(27, 20309),

Gene: Erenyeager_44 Start: 19371, Stop: 19895, Start Num: 9
Candidate Starts for Erenyeager_44:
(Start: 9 @19371 has 21 MA's), (Start: 10 @19380 has 10 MA's), (12, 19428), (19, 19545), (20, 19560),
(27, 19704),

Gene: Fork_40 Start: 18695, Stop: 19210, Start Num: 10
Candidate Starts for Fork_40:
(7, 18659), (Start: 9 @18686 has 21 MA's), (Start: 10 @18695 has 10 MA's), (12, 18743), (19, 18860),
(20, 18875), (27, 19019),

Gene: HollowPurple_45 Start: 19236, Stop: 19763, Start Num: 9
Candidate Starts for HollowPurple_45:
(Start: 9 @19236 has 21 MA's), (Start: 10 @19245 has 10 MA's), (12, 19293), (21, 19437), (27, 19569),
(31, 19623),

Gene: Hortus1_39 Start: 20973, Stop: 21449, Start Num: 9
Candidate Starts for Hortus1_39:
(8, 20949), (Start: 9 @20973 has 21 MA's), (Start: 10 @20982 has 10 MA's), (16, 21087), (17, 21096),
(28, 21339),

Gene: Hubbs_39 Start: 18522, Stop: 19022, Start Num: 9
Candidate Starts for Hubbs_39:
(Start: 9 @18522 has 21 MA's), (Start: 10 @18531 has 10 MA's), (13, 18618), (27, 18855), (28, 18891),
(30, 18900), (33, 18930),

Gene: Issa7_43 Start: 18698, Stop: 19216, Start Num: 10
Candidate Starts for Issa7_43:
(Start: 9 @18689 has 21 MA's), (Start: 10 @18698 has 10 MA's), (12, 18746), (19, 18863), (21, 18890),
(27, 19022), (31, 19076),

Gene: Jacko_41 Start: 19168, Stop: 19641, Start Num: 10
Candidate Starts for Jacko_41:
(Start: 9 @19159 has 21 MA's), (Start: 10 @19168 has 10 MA's), (25, 19432), (26, 19450),

Gene: LeeroyJenkins_34 Start: 17627, Stop: 18097, Start Num: 9
Candidate Starts for LeeroyJenkins_34:
(3, 17504), (4, 17549), (Start: 9 @17627 has 21 MA's), (11, 17666), (12, 17684), (15, 17738), (23,
17867), (24, 17882), (25, 17903), (34, 18080),

Gene: Lifes_30 Start: 15351, Stop: 15821, Start Num: 9
Candidate Starts for Lifes_30:
(1, 14901), (2, 14934), (3, 15228), (4, 15273), (Start: 9 @15351 has 21 MA's), (11, 15390), (12, 15408),
(15, 15462), (23, 15591), (24, 15606), (25, 15627), (34, 15804),

Gene: Lupine_37 Start: 17723, Stop: 18223, Start Num: 9
Candidate Starts for Lupine_37:
(Start: 9 @17723 has 21 MA's), (Start: 10 @17732 has 10 MA's), (13, 17819), (27, 18056), (28, 18092),
(30, 18101), (33, 18131),

Gene: Lyell_44 Start: 19299, Stop: 19814, Start Num: 10
Candidate Starts for Lyell_44:
(Start: 9 @19290 has 21 MA's), (Start: 10 @19299 has 10 MA's), (12, 19347), (19, 19464), (20, 19479),
(26, 19584), (27, 19623),

Gene: Mistmere_37 Start: 17840, Stop: 18376, Start Num: 10
Candidate Starts for Mistmere_37:
(6, 17798), (7, 17804), (Start: 9 @17831 has 21 MA's), (Start: 10 @17840 has 10 MA's), (19, 18005),
(21, 18029), (22, 18059), (31, 18215), (32, 18224), (35, 18341),

Gene: Musetta_44 Start: 19414, Stop: 19932, Start Num: 10
Candidate Starts for Musetta_44:

(Start: 9 @19405 has 21 MA's), (Start: 10 @19414 has 10 MA's), (12, 19462), (19, 19579), (21, 19606), (27, 19738), (31, 19792),

Gene: Necrophoxinus_46 Start: 19993, Stop: 20508, Start Num: 10
Candidate Starts for Necrophoxinus_46:
(Start: 9 @19984 has 21 MA's), (Start: 10 @19993 has 10 MA's), (12, 20041), (19, 20158), (20, 20173), (27, 20317),

Gene: OlinDD_39 Start: 20972, Stop: 21448, Start Num: 9
Candidate Starts for OlinDD_39:
(8, 20948), (Start: 9 @20972 has 21 MA's), (Start: 10 @20981 has 10 MA's), (16, 21086), (17, 21095), (28, 21338),

Gene: Pavlo_37 Start: 18001, Stop: 18501, Start Num: 9
Candidate Starts for Pavlo_37:
(Start: 9 @18001 has 21 MA's), (Start: 10 @18010 has 10 MA's), (13, 18097), (27, 18334), (28, 18370), (30, 18379), (33, 18409),

Gene: PhillyPhilly_38 Start: 17903, Stop: 18403, Start Num: 9
Candidate Starts for PhillyPhilly_38:
(Start: 9 @17903 has 21 MA's), (Start: 10 @17912 has 10 MA's), (27, 18236), (28, 18272), (30, 18281), (33, 18311),

Gene: Pioneer3_39 Start: 20980, Stop: 21456, Start Num: 9
Candidate Starts for Pioneer3_39:
(8, 20956), (Start: 9 @20980 has 21 MA's), (Start: 10 @20989 has 10 MA's), (16, 21094), (17, 21103), (28, 21346),

Gene: Platte_39 Start: 20765, Stop: 21241, Start Num: 9
Candidate Starts for Platte_39:
(8, 20741), (Start: 9 @20765 has 21 MA's), (Start: 10 @20774 has 10 MA's), (16, 20879), (17, 20888), (28, 21131),

Gene: Roman_39 Start: 18369, Stop: 18869, Start Num: 9
Candidate Starts for Roman_39:
(Start: 9 @18369 has 21 MA's), (Start: 10 @18378 has 10 MA's), (13, 18465), (27, 18702), (28, 18738), (30, 18747), (33, 18777),

Gene: RunningBrook_45 Start: 19976, Stop: 20500, Start Num: 9
Candidate Starts for RunningBrook_45:
(Start: 9 @19976 has 21 MA's), (Start: 10 @19985 has 10 MA's), (12, 20033), (19, 20150), (20, 20165), (27, 20309),

Gene: Saradis_39 Start: 17970, Stop: 18461, Start Num: 10
Candidate Starts for Saradis_39:
(Start: 9 @17961 has 21 MA's), (Start: 10 @17970 has 10 MA's), (13, 18057), (27, 18294), (28, 18330), (30, 18339), (33, 18369),

Gene: Shroomer_47 Start: 19525, Stop: 20040, Start Num: 10
Candidate Starts for Shroomer_47:
(Start: 9 @19516 has 21 MA's), (Start: 10 @19525 has 10 MA's), (12, 19573), (18, 19681), (19, 19690), (20, 19705), (27, 19849),

Gene: Solimine_39 Start: 18385, Stop: 18876, Start Num: 10
Candidate Starts for Solimine_39:
(Start: 9 @18376 has 21 MA's), (Start: 10 @18385 has 10 MA's), (13, 18472), (27, 18709), (28, 18745),
(30, 18754), (33, 18784),

Gene: SteakFry_43 Start: 19245, Stop: 19763, Start Num: 10
Candidate Starts for SteakFry_43:
(Start: 9 @19236 has 21 MA's), (Start: 10 @19245 has 10 MA's), (12, 19293), (21, 19437), (27, 19569),
(31, 19623),

Gene: StevieWelch_44 Start: 19376, Stop: 19900, Start Num: 9
Candidate Starts for StevieWelch_44:
(Start: 9 @19376 has 21 MA's), (Start: 10 @19385 has 10 MA's), (12, 19433), (19, 19550), (20, 19565),
(27, 19709),

Gene: Tandem_39 Start: 20919, Stop: 21395, Start Num: 9
Candidate Starts for Tandem_39:
(8, 20895), (Start: 9 @20919 has 21 MA's), (Start: 10 @20928 has 10 MA's), (16, 21033), (17, 21042),
(28, 21285),

Gene: Uterion_41 Start: 18480, Stop: 18971, Start Num: 10
Candidate Starts for Uterion_41:
(Start: 9 @18471 has 21 MA's), (Start: 10 @18480 has 10 MA's), (13, 18567), (27, 18804), (28, 18840),
(30, 18849), (33, 18879),

Gene: WaterT_33 Start: 17440, Stop: 17910, Start Num: 9
Candidate Starts for WaterT_33:
(1, 16990), (2, 17023), (3, 17317), (4, 17362), (Start: 9 @17440 has 21 MA's), (11, 17479), (12, 17497),
(23, 17680), (34, 17893),

Gene: Welcome_45 Start: 19402, Stop: 19917, Start Num: 10
Candidate Starts for Welcome_45:
(Start: 9 @19393 has 21 MA's), (Start: 10 @19402 has 10 MA's), (12, 19450), (19, 19567), (20, 19582),
(27, 19726),

Gene: Wolfstar_39 Start: 18320, Stop: 18826, Start Num: 10
Candidate Starts for Wolfstar_39:
(5, 18245), (Start: 9 @18311 has 21 MA's), (Start: 10 @18320 has 10 MA's), (14, 18413), (28, 18680),
(29, 18686), (30, 18689), (33, 18719),

Gene: Yuma_43 Start: 19313, Stop: 19828, Start Num: 10
Candidate Starts for Yuma_43:
(7, 19277), (Start: 9 @19304 has 21 MA's), (Start: 10 @19313 has 10 MA's), (12, 19361), (19, 19478),
(20, 19493), (26, 19598), (27, 19637),