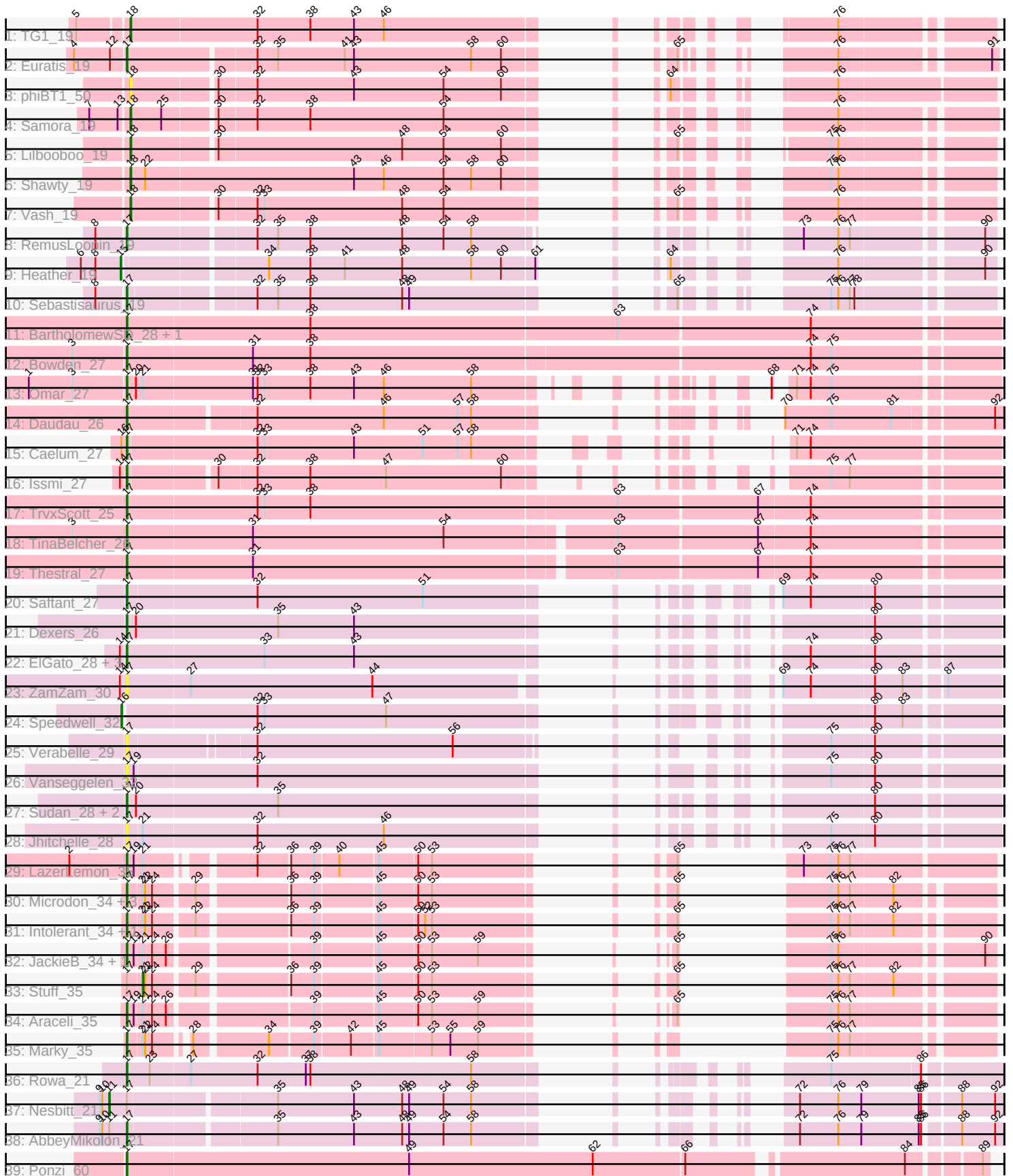




Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 280523 Report

This analysis was run 02/07/26 on database version 634.

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 280523 has 50 members, 7 are drafts.

Phages represented in each track:

- Track 1 : TG1_19
- Track 2 : Euratis_19
- Track 3 : phiBT1_50
- Track 4 : Samora_19
- Track 5 : Lilbooboo_19
- Track 6 : Shawty_19
- Track 7 : Vash_19
- Track 8 : RemusLoopin_19
- Track 9 : Heather_19
- Track 10 : Sebastisaurus_19
- Track 11 : BartholomewSD_28, Alvy_28
- Track 12 : Bowden_27
- Track 13 : Omar_27
- Track 14 : Daudau_26
- Track 15 : Caelum_27
- Track 16 : Issmi_27
- Track 17 : TrvxScott_25
- Track 18 : TinaBelcher_26
- Track 19 : Thestral_27
- Track 20 : Saftant_27
- Track 21 : Dexers_26
- Track 22 : ElGato_28, Pavo_28, Provolone_28, Conan_28
- Track 23 : ZamZam_30
- Track 24 : Speedwell_32
- Track 25 : Verabelle_29
- Track 26 : Vanseggelen_32
- Track 27 : Sudan_28, Alsaber_28, Kaine_27
- Track 28 : Jhitchelle_28
- Track 29 : LazerLemon_35
- Track 30 : Microdon_34, Bogota_35, UNTPL_35, Crosby_35
- Track 31 : Intolerant_34, Shynx_35
- Track 32 : JackieB_34, Henoccus_35
- Track 33 : Stuff_35

- Track 34 : Araceli_35
- Track 35 : Marky_35
- Track 36 : Rowa_21
- Track 37 : Nesbitt_21
- Track 38 : AbbeyMikolon_21
- Track 39 : Ponzi_60

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

The start number called the most often in the published annotations is 17, it was called in 34 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbeyMikolon_21, Alsaber_28, Alvy_28, Araceli_35, BartholomewSD_28, Bogota_35, Bowden_27, Caelum_27, Conan_28, Crosby_35, Daudau_26, Dexers_26, ElGato_28, Euratis_19, Henoccus_35, Intolerant_34, Issmi_27, JackieB_34, Jhitchelle_28, Kaine_27, LazerLemon_35, Marky_35, Microdon_34, Omar_27, Pavo_28, Ponzi_60, Provolone_28, RemusLoopin_19, Rowa_21, Saftant_27, Sebastisaurus_19, Shynx_35, Sudan_28, Thestral_27, TinaBelcher_26, TrvxScott_25, UNTPL_35, Vanseggen_32, Verabelle_29, ZamZam_30,

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

- Nesbitt_21, Stuff_35,

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

- Heather_19, Lilbooboo_19, Samora_19, Shawty_19, Speedwell_32, TG1_19, Vash_19, phiBT1_50,

Summary by start number:

Start 11:

- Found in 2 of 50 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nesbitt_21 (BL),

Start 15:

- Found in 1 of 50 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Heather_19 (BB2),

Start 16:

- Found in 2 of 50 (4.0%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Speedwell_32 (BD3),

Start 17:

- Found in 42 of 50 (84.0%) of genes in pham

- Manual Annotations of this start: 34 of 43
- Called 95.2% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_21 (BL), Alsaber_28 (BD3), Alvy_28 (BD2), Araceli_35 (BH), BartholomewSD_28 (BD2), Bogota_35 (BH), Bowden_27 (BD2), Caelum_27 (BD2), Conan_28 (BD3), Crosby_35 (BH), Daudau_26 (BD2), Dexers_26 (BD3), ElGato_28 (BD3), Euratis_19 (BB1), Henoccus_35 (BH), Intolerant_34 (BH), Issmi_27 (BD2), JackieB_34 (BH), Jhitchelle_28 (BD3), Kaine_27 (BD3), LazerLemon_35 (BH), Marky_35 (BH), Microdon_34 (BH), Omar_27 (BD2), Pavo_28 (BD3), Ponzi_60 (singleton), Provolone_28 (BD3), RemusLoopin_19 (BB2), Rowa_21 (BL), Saftant_27 (BD3), Sebastisaurus_19 (BB2), Shynx_35 (BH), Sudan_28 (BD3), Thestral_27 (BD2), TinaBelcher_26 (BD2), TrvxScott_25 (BD2), UNTPL_35 (BH), Vanseggelen_32 (BD3), Verabelle_29 (BD3), ZamZam_30 (BD3),

Start 18:

- Found in 6 of 50 (12.0%) of genes in pham
- Manual Annotations of this start: 5 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbooboo_19 (BB1), Samora_19 (BB1), Shawty_19 (BB1), TG1_19 (BB1), Vash_19 (BB1), phiBT1_50 (BB1),

Start 21:

- Found in 14 of 50 (28.0%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Stuff_35 (BH),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, BL, BH, BD3, BD2, BB2, BB1,

Info for manual annotations of cluster BB1:

- Start number 17 was manually annotated 1 time for cluster BB1.
- Start number 18 was manually annotated 5 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 15 was manually annotated 1 time for cluster BB2.
- Start number 17 was manually annotated 2 times for cluster BB2.

Info for manual annotations of cluster BD2:

- Start number 17 was manually annotated 10 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 16 was manually annotated 1 time for cluster BD3.
- Start number 17 was manually annotated 8 times for cluster BD3.

Info for manual annotations of cluster BH:

- Start number 17 was manually annotated 10 times for cluster BH.
- Start number 21 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BL:

- Start number 11 was manually annotated 1 time for cluster BL.

- Start number 17 was manually annotated 2 times for cluster BL.

Gene Information:

Gene: AbbeyMikolon_21 Start: 17283, Stop: 18116, Start Num: 17

Candidate Starts for AbbeyMikolon_21:

(9, 17250), (10, 17253), (Start: 11 @17262 has 1 MA's), (Start: 17 @17283 has 34 MA's), (35, 17463), (43, 17562), (48, 17625), (49, 17634), (54, 17679), (58, 17715), (72, 17868), (76, 17916), (79, 17946), (85, 18021), (86, 18024), (88, 18063), (92, 18105),

Gene: Alsaber_28 Start: 22687, Stop: 23544, Start Num: 17

Candidate Starts for Alsaber_28:

(Start: 17 @22687 has 34 MA's), (20, 22699), (35, 22882), (80, 23395),

Gene: Alvy_28 Start: 21751, Stop: 22863, Start Num: 17

Candidate Starts for Alvy_28:

(Start: 17 @21751 has 34 MA's), (38, 21988), (63, 22384), (74, 22630),

Gene: Araceli_35 Start: 27602, Stop: 28348, Start Num: 17

Candidate Starts for Araceli_35:

(Start: 17 @27602 has 34 MA's), (19, 27611), (Start: 21 @27620 has 1 MA's), (24, 27632), (26, 27650), (39, 27818), (45, 27893), (50, 27941), (53, 27959), (59, 28019), (65, 28097), (75, 28157), (76, 28166), (77, 28181),

Gene: BartholomewSD_28 Start: 21751, Stop: 22863, Start Num: 17

Candidate Starts for BartholomewSD_28:

(Start: 17 @21751 has 34 MA's), (38, 21988), (63, 22384), (74, 22630),

Gene: Bogota_35 Start: 27743, Stop: 28501, Start Num: 17

Candidate Starts for Bogota_35:

(Start: 17 @27743 has 34 MA's), (Start: 21 @27761 has 1 MA's), (22, 27764), (24, 27773), (29, 27821), (36, 27929), (39, 27959), (45, 28034), (50, 28082), (53, 28100), (65, 28250), (75, 28310), (76, 28319), (77, 28334), (82, 28388),

Gene: Bowden_27 Start: 21679, Stop: 22788, Start Num: 17

Candidate Starts for Bowden_27:

(3, 21613), (Start: 17 @21679 has 34 MA's), (31, 21841), (38, 21916), (74, 22555), (75, 22582),

Gene: Caelum_27 Start: 21654, Stop: 22502, Start Num: 17

Candidate Starts for Caelum_27:

(Start: 16 @21648 has 1 MA's), (Start: 17 @21654 has 34 MA's), (32, 21819), (33, 21828), (43, 21945), (51, 22035), (57, 22080), (58, 22098), (71, 22251), (74, 22269),

Gene: Conan_28 Start: 22586, Stop: 23443, Start Num: 17

Candidate Starts for Conan_28:

(14, 22580), (Start: 17 @22586 has 34 MA's), (33, 22763), (43, 22880), (74, 23213), (80, 23294),

Gene: Crosby_35 Start: 27729, Stop: 28487, Start Num: 17

Candidate Starts for Crosby_35:

(Start: 17 @27729 has 34 MA's), (Start: 21 @27747 has 1 MA's), (22, 27750), (24, 27759), (29, 27807), (36, 27915), (39, 27945), (45, 28020), (50, 28068), (53, 28086), (65, 28236), (75, 28296), (76, 28305),

(77, 28320), (82, 28374),

Gene: Daudau_26 Start: 21682, Stop: 22524, Start Num: 17

Candidate Starts for Daudau_26:

(Start: 17 @21682 has 34 MA's), (32, 21838), (46, 22003), (57, 22099), (58, 22117), (70, 22258), (75, 22318), (81, 22396), (92, 22513),

Gene: Dexers_26 Start: 22608, Stop: 23465, Start Num: 17

Candidate Starts for Dexers_26:

(Start: 17 @22608 has 34 MA's), (20, 22620), (35, 22803), (43, 22902), (80, 23316),

Gene: ElGato_28 Start: 22246, Stop: 23103, Start Num: 17

Candidate Starts for ElGato_28:

(14, 22240), (Start: 17 @22246 has 34 MA's), (33, 22423), (43, 22540), (74, 22873), (80, 22954),

Gene: Euratis_19 Start: 16260, Stop: 17087, Start Num: 17

Candidate Starts for Euratis_19:

(4, 16197), (12, 16242), (Start: 17 @16260 has 34 MA's), (32, 16419), (35, 16446), (41, 16533), (43, 16545), (58, 16698), (60, 16737), (65, 16803), (76, 16902), (91, 17079),

Gene: Heather_19 Start: 15807, Stop: 16646, Start Num: 15

Candidate Starts for Heather_19:

(6, 15756), (8, 15774), (Start: 15 @15807 has 1 MA's), (34, 15978), (38, 16032), (41, 16077), (48, 16152), (58, 16242), (60, 16281), (61, 16320), (64, 16338), (76, 16464), (90, 16632),

Gene: Henoccus_35 Start: 27612, Stop: 28364, Start Num: 17

Candidate Starts for Henoccus_35:

(Start: 17 @27612 has 34 MA's), (19, 27621), (Start: 21 @27630 has 1 MA's), (24, 27642), (26, 27660), (39, 27828), (45, 27903), (50, 27951), (53, 27969), (59, 28029), (65, 28113), (75, 28173), (76, 28182), (90, 28350),

Gene: Intolerant_34 Start: 27603, Stop: 28361, Start Num: 17

Candidate Starts for Intolerant_34:

(Start: 17 @27603 has 34 MA's), (Start: 21 @27621 has 1 MA's), (22, 27624), (24, 27633), (29, 27681), (36, 27789), (39, 27819), (45, 27894), (50, 27942), (52, 27951), (53, 27960), (65, 28110), (75, 28170), (76, 28179), (77, 28194), (82, 28248),

Gene: Issmi_27 Start: 22305, Stop: 23144, Start Num: 17

Candidate Starts for Issmi_27:

(14, 22299), (Start: 17 @22305 has 34 MA's), (30, 22410), (32, 22458), (38, 22527), (47, 22626), (60, 22776), (75, 22938), (77, 22962),

Gene: JackieB_34 Start: 27467, Stop: 28213, Start Num: 17

Candidate Starts for JackieB_34:

(Start: 17 @27467 has 34 MA's), (19, 27476), (Start: 21 @27485 has 1 MA's), (24, 27497), (26, 27515), (39, 27683), (45, 27758), (50, 27806), (53, 27824), (59, 27884), (65, 27962), (75, 28022), (76, 28031), (90, 28199),

Gene: Jhitchelle_28 Start: 22184, Stop: 23038, Start Num: 17

Candidate Starts for Jhitchelle_28:

(Start: 17 @22184 has 34 MA's), (Start: 21 @22202 has 1 MA's), (32, 22349), (46, 22514), (75, 22835), (80, 22889),

Gene: Kaine_27 Start: 22390, Stop: 23253, Start Num: 17
Candidate Starts for Kaine_27:
(Start: 17 @22390 has 34 MA's), (20, 22402), (35, 22585), (80, 23104),

Gene: LazerLemon_35 Start: 28118, Stop: 28876, Start Num: 17
Candidate Starts for LazerLemon_35:
(2, 28043), (Start: 17 @28118 has 34 MA's), (19, 28127), (Start: 21 @28136 has 1 MA's), (32, 28253),
(36, 28292), (39, 28322), (40, 28349), (45, 28397), (50, 28445), (53, 28463), (65, 28613), (73, 28637),
(75, 28673), (76, 28682), (77, 28697),

Gene: Lilbooboo_19 Start: 16465, Stop: 17286, Start Num: 18
Candidate Starts for Lilbooboo_19:
(Start: 18 @16465 has 5 MA's), (30, 16567), (48, 16804), (54, 16858), (60, 16933), (65, 16999), (75,
17095), (76, 17104),

Gene: Marky_35 Start: 27476, Stop: 28222, Start Num: 17
Candidate Starts for Marky_35:
(Start: 17 @27476 has 34 MA's), (Start: 21 @27494 has 1 MA's), (22, 27497), (24, 27506), (28, 27539),
(34, 27626), (39, 27680), (42, 27722), (45, 27755), (53, 27821), (55, 27845), (59, 27881), (75, 28031),
(76, 28040), (77, 28055),

Gene: Microdon_34 Start: 27426, Stop: 28184, Start Num: 17
Candidate Starts for Microdon_34:
(Start: 17 @27426 has 34 MA's), (Start: 21 @27444 has 1 MA's), (22, 27447), (24, 27456), (29, 27504),
(36, 27612), (39, 27642), (45, 27717), (50, 27765), (53, 27783), (65, 27933), (75, 27993), (76, 28002),
(77, 28017), (82, 28071),

Gene: Nesbitt_21 Start: 17334, Stop: 18188, Start Num: 11
Candidate Starts for Nesbitt_21:
(9, 17322), (10, 17325), (Start: 11 @17334 has 1 MA's), (Start: 17 @17355 has 34 MA's), (35, 17535),
(43, 17634), (48, 17697), (49, 17706), (54, 17751), (58, 17787), (72, 17940), (76, 17988), (79, 18018),
(85, 18093), (86, 18096), (88, 18135), (92, 18177),

Gene: Omar_27 Start: 21948, Stop: 22808, Start Num: 17
Candidate Starts for Omar_27:
(1, 21825), (3, 21882), (Start: 17 @21948 has 34 MA's), (20, 21960), (Start: 21 @21969 has 1 MA's),
(31, 22110), (32, 22116), (33, 22125), (38, 22185), (43, 22242), (46, 22281), (58, 22395), (68, 22545),
(71, 22557), (74, 22575), (75, 22602),

Gene: Pavo_28 Start: 22859, Stop: 23716, Start Num: 17
Candidate Starts for Pavo_28:
(14, 22853), (Start: 17 @22859 has 34 MA's), (33, 23036), (43, 23153), (74, 23486), (80, 23567),

Gene: Ponzi_60 Start: 42783, Stop: 43853, Start Num: 17
Candidate Starts for Ponzi_60:
(Start: 17 @42783 has 34 MA's), (49, 43149), (62, 43389), (66, 43506), (84, 43764), (89, 43845),

Gene: Provolone_28 Start: 22238, Stop: 23095, Start Num: 17
Candidate Starts for Provolone_28:
(14, 22232), (Start: 17 @22238 has 34 MA's), (33, 22415), (43, 22532), (74, 22865), (80, 22946),

Gene: RemusLoopin_19 Start: 16180, Stop: 16992, Start Num: 17
Candidate Starts for RemusLoopin_19:

(8, 16144), (Start: 17 @16180 has 34 MA's), (32, 16336), (35, 16363), (38, 16405), (48, 16525), (54, 16579), (58, 16615), (73, 16765), (76, 16810), (77, 16825), (90, 16978),

Gene: Rowa_21 Start: 17387, Stop: 18241, Start Num: 17

Candidate Starts for Rowa_21:

(Start: 17 @17387 has 34 MA's), (23, 17417), (27, 17468), (32, 17555), (37, 17618), (38, 17624), (58, 17834), (75, 18035), (86, 18149),

Gene: Saftant_27 Start: 22851, Stop: 23717, Start Num: 17

Candidate Starts for Saftant_27:

(Start: 17 @22851 has 34 MA's), (32, 23016), (51, 23232), (69, 23451), (74, 23487), (80, 23568),

Gene: Samora_19 Start: 16585, Stop: 17418, Start Num: 18

Candidate Starts for Samora_19:

(7, 16537), (13, 16573), (Start: 18 @16585 has 5 MA's), (25, 16624), (30, 16687), (32, 16735), (38, 16804), (54, 16978), (76, 17233),

Gene: Sebastisaurus_19 Start: 16196, Stop: 17023, Start Num: 17

Candidate Starts for Sebastisaurus_19:

(8, 16160), (Start: 17 @16196 has 34 MA's), (32, 16346), (35, 16373), (38, 16415), (48, 16535), (49, 16544), (65, 16730), (75, 16832), (76, 16841), (77, 16856), (78, 16862),

Gene: Shawty_19 Start: 16138, Stop: 16980, Start Num: 18

Candidate Starts for Shawty_19:

(Start: 18 @16138 has 5 MA's), (22, 16156), (43, 16426), (46, 16465), (54, 16543), (58, 16579), (60, 16618), (75, 16789), (76, 16798),

Gene: Shynx_35 Start: 27882, Stop: 28640, Start Num: 17

Candidate Starts for Shynx_35:

(Start: 17 @27882 has 34 MA's), (Start: 21 @27900 has 1 MA's), (22, 27903), (24, 27912), (29, 27960), (36, 28068), (39, 28098), (45, 28173), (50, 28221), (52, 28230), (53, 28239), (65, 28389), (75, 28449), (76, 28458), (77, 28473), (82, 28527),

Gene: Speedwell_32 Start: 24115, Stop: 24984, Start Num: 16

Candidate Starts for Speedwell_32:

(Start: 16 @24115 has 1 MA's), (32, 24283), (33, 24292), (47, 24451), (80, 24835), (83, 24871),

Gene: Stuff_35 Start: 27922, Stop: 28662, Start Num: 21

Candidate Starts for Stuff_35:

(Start: 17 @27904 has 34 MA's), (Start: 21 @27922 has 1 MA's), (22, 27925), (24, 27934), (29, 27982), (36, 28090), (39, 28120), (45, 28195), (50, 28243), (53, 28261), (65, 28411), (75, 28471), (76, 28480), (77, 28495), (82, 28549),

Gene: Sudan_28 Start: 22677, Stop: 23540, Start Num: 17

Candidate Starts for Sudan_28:

(Start: 17 @22677 has 34 MA's), (20, 22689), (35, 22872), (80, 23391),

Gene: TG1_19 Start: 15771, Stop: 16601, Start Num: 18

Candidate Starts for TG1_19:

(5, 15711), (Start: 18 @15771 has 5 MA's), (32, 15933), (38, 16002), (43, 16059), (46, 16098), (76, 16419),

Gene: Thestral_27 Start: 21686, Stop: 22777, Start Num: 17

Candidate Starts for Thestral_27:

(Start: 17 @21686 has 34 MA's), (31, 21848), (63, 22301), (67, 22478), (74, 22544),

Gene: TinaBelcher_26 Start: 21633, Stop: 22724, Start Num: 17

Candidate Starts for TinaBelcher_26:

(3, 21564), (Start: 17 @21633 has 34 MA's), (31, 21795), (54, 22044), (63, 22248), (67, 22425), (74, 22491),

Gene: TrvxScott_25 Start: 21664, Stop: 22770, Start Num: 17

Candidate Starts for TrvxScott_25:

(Start: 17 @21664 has 34 MA's), (32, 21832), (33, 21841), (38, 21901), (63, 22294), (67, 22471), (74, 22537),

Gene: UNTPL_35 Start: 27724, Stop: 28482, Start Num: 17

Candidate Starts for UNTPL_35:

(Start: 17 @27724 has 34 MA's), (Start: 21 @27742 has 1 MA's), (22, 27745), (24, 27754), (29, 27802), (36, 27910), (39, 27940), (45, 28015), (50, 28063), (53, 28081), (65, 28231), (75, 28291), (76, 28300), (77, 28315), (82, 28369),

Gene: Vanseggelen_32 Start: 22425, Stop: 23285, Start Num: 17

Candidate Starts for Vanseggelen_32:

(Start: 17 @22425 has 34 MA's), (19, 22434), (32, 22590), (75, 23082), (80, 23136),

Gene: Vash_19 Start: 16260, Stop: 17087, Start Num: 18

Candidate Starts for Vash_19:

(Start: 18 @16260 has 5 MA's), (30, 16362), (32, 16410), (33, 16419), (48, 16599), (54, 16653), (65, 16794), (76, 16905),

Gene: Verabelle_29 Start: 22872, Stop: 23702, Start Num: 17

Candidate Starts for Verabelle_29:

(Start: 17 @22872 has 34 MA's), (32, 23028), (56, 23283), (75, 23499), (80, 23553),

Gene: ZamZam_30 Start: 22786, Stop: 23637, Start Num: 17

Candidate Starts for ZamZam_30:

(14, 22780), (Start: 17 @22786 has 34 MA's), (27, 22867), (44, 23104), (69, 23371), (74, 23407), (80, 23488), (83, 23524), (87, 23569),

Gene: phiBT1_50 Start: 16671, Stop: 17507, Start Num: 18

Candidate Starts for phiBT1_50:

(Start: 18 @16671 has 5 MA's), (30, 16773), (32, 16821), (43, 16947), (54, 17064), (60, 17139), (64, 17196), (76, 17310),