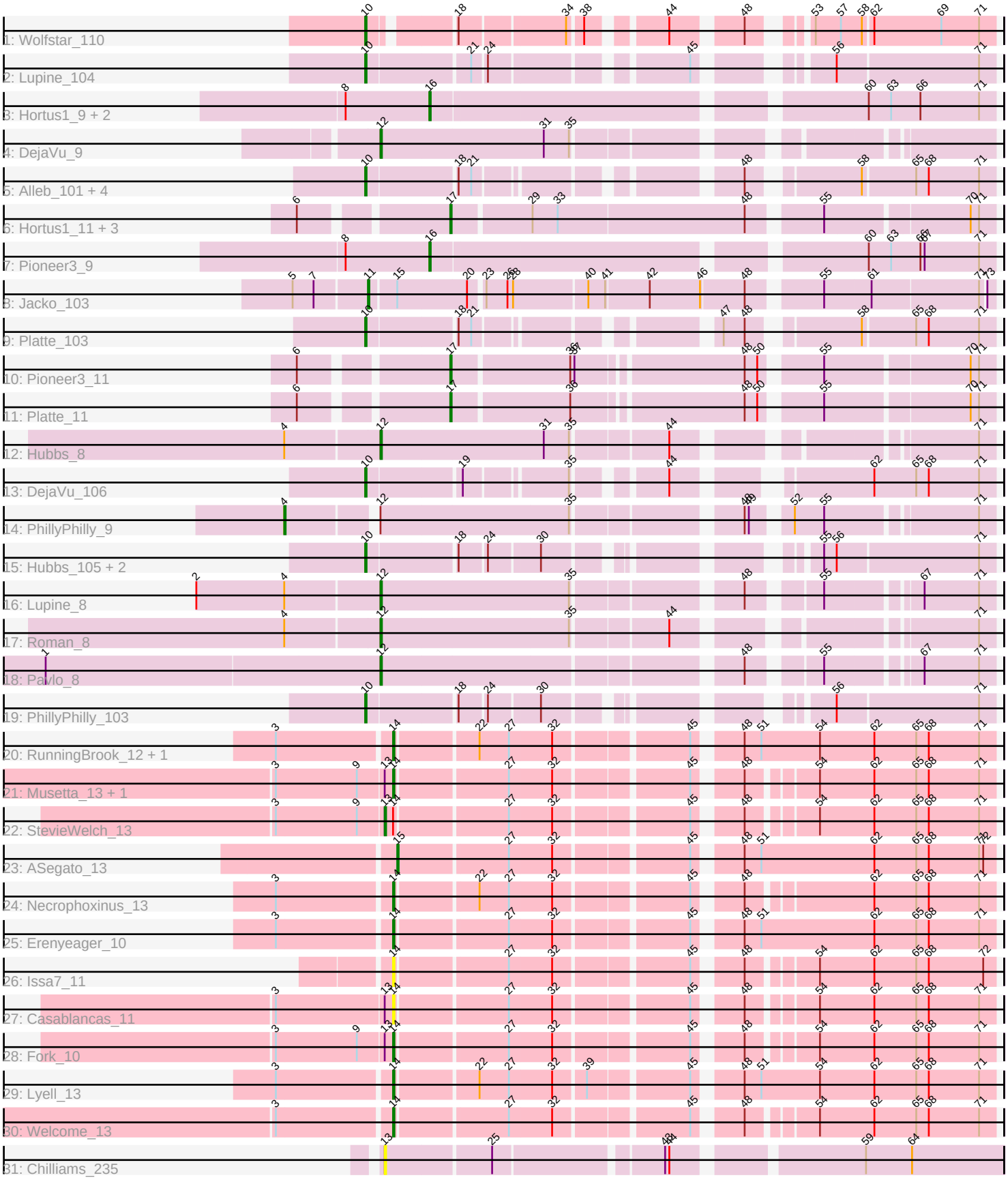
Pham 212724


1: Wolfstar_110
2: Lupine_104
3: Hortus1_9 + 2
4: DejaVu_9
5: Alleb_101 + 4
6: Hortus1_11 + 3
7: Pioneer3_9
8: Jacko_103
9: Platte_103
10: Pioneer3_11
11: Platte_11
12: Hubbs_8
13: DejaVu_106
14: PhillyPhilly_9
15: Hubbs_105 + 2
16: Lupine_8
17: Roman_8
18: Pavlo_8
19: PhillyPhilly_103
20: RunningBrook_12 + 1
21: Musetta_13 + 1
22: StevieWelch_13
23: ASegato_13
24: Necrophoxinus_13
25: Erenyeager_10
26: Issa7_11
27: Casablancas_11
28: Fork_10
29: Lyell_13
30: Welcome_13
31: Chilliams_235

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 212724 Report

This analysis was run 02/22/25 on database version 588.

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 212724 has 44 members, 3 are drafts.

Phages represented in each track:
- Track 1 : Wolfstar_110
- Track 2 : Lupine_104
- Track 3 : Hortus1_9, OlinDD_9, Alleb_10
- Track 4 : DejaVu_9
- Track 5 : Alleb_101, OlinDD_104, Tandem_104, Pioneer3_104, Hortus1_104
- Track 6 : Hortus1_11, OlinDD_11, Tandem_11, Alleb_12
- Track 7 : Pioneer3_9
- Track 8 : Jacko_103
- Track 9 : Platte_103
- Track 10 : Pioneer3_11
- Track 11 : Platte_11
- Track 12 : Hubbs_8
- Track 13 : DejaVu_106
- Track 14 : PhillyPhilly_9
- Track 15 : Hubbs_105, Pavlo_106, Roman_107
- Track 16 : Lupine_8
- Track 17 : Roman_8
- Track 18 : Pavlo_8
- Track 19 : PhillyPhilly_103
- Track 20 : RunningBrook_12, DustyDino_13
- Track 21 : Musetta_13, Yuma_13
- Track 22 : StevieWelch_13
- Track 23 : ASegato_13
- Track 24 : Necrophoxinus_13
- Track 25 : Erenyeager_10
- Track 26 : Issa7_11
- Track 27 : Casablancas_11
- Track 28 : Fork_10
- Track 29 : Lyell_13
- Track 30 : Welcome_13
- Track 31 : Chilliams_235

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

The start number called the most often in the published annotations is 10, it was called in 13 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alleb_101, DejaVu_106, Hortus1_104, Hubbs_105, Lupine_104, OlinDD_104, Pavlo_106, PhillyPhilly_103, Pioneer3_104, Platte_103, Roman_107, Tandem_104, Wolfstar_110,

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

Genes that do not have the "Most Annotated" start:
• ASegato_13, Alleb_10, Alleb_12, Casablancas_11, Chilliams_235, DejaVu_9, DustyDino_13, Erenyeager_10, Fork_10, Hortus1_11, Hortus1_9, Hubbs_8, Issa7_11, Jacko_103, Lupine_8, Lyell_13, Musetta_13, Necrophoxinus_13, OlinDD_11, OlinDD_9, Pavlo_8, PhillyPhilly_9, Pioneer3_11, Pioneer3_9, Platte_11, Roman_8, RunningBrook_12, StevieWelch_13, Tandem_11, Welcome_13, Yuma_13,

Summary by start number:

Start 4:
• Found in 4 of 44 (9.1%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 25.0% of time when present
• Phage (with cluster) where this start called: PhillyPhilly_9 (ED1),

Start 10:
• Found in 13 of 44 (29.5%) of genes in pham
• Manual Annotations of this start: 13 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alleb_101 (ED1), DejaVu_106 (ED1), Hortus1_104 (ED1), Hubbs_105 (ED1), Lupine_104 (ED1), OlinDD_104 (ED1), Pavlo_106 (ED1), PhillyPhilly_103 (ED1), Pioneer3_104 (ED1), Platte_103 (ED1), Roman_107 (ED1), Tandem_104 (ED1), Wolfstar_110 (ED),

Start 11:
• Found in 1 of 44 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jacko_103 (ED1),

Start 12:
• Found in 6 of 44 (13.6%) of genes in pham
• Manual Annotations of this start: 5 of 41
• Called 83.3% of time when present
• Phage (with cluster) where this start called: DejaVu_9 (ED1), Hubbs_8 (ED1), Lupine_8 (ED1), Pavlo_8 (ED1), Roman_8 (ED1),

Start 13:

• Found in 6 of 44 (13.6%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Chilliams_235 (FC), StevieWelch_13 (ED2),

Start 14:
• Found in 12 of 44 (27.3%) of genes in pham
• Manual Annotations of this start: 9 of 41
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Casablancas_11 (ED2), DustyDino_13 (ED2), Erenyeager_10 (ED2), Fork_10 (ED2), Issa7_11 (ED2), Lyell_13 (ED2), Musetta_13 (ED2), Necrophoxinus_13 (ED2), RunningBrook_12 (ED2), Welcome_13 (ED2), Yuma_13 (ED2),

Start 15:
• Found in 2 of 44 (4.5%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 50.0% of time when present
• Phage (with cluster) where this start called: ASegato_13 (ED2),

Start 16:
• Found in 4 of 44 (9.1%) of genes in pham
• Manual Annotations of this start: 4 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alleb_10 (ED1), Hortus1_9 (ED1), OlinDD_9 (ED1), Pioneer3_9 (ED1),

Start 17:
• Found in 6 of 44 (13.6%) of genes in pham
• Manual Annotations of this start: 6 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alleb_12 (ED1), Hortus1_11 (ED1), OlinDD_11 (ED1), Pioneer3_11 (ED1), Platte_11 (ED1), Tandem_11 (ED1),

Summary by clusters:

There are 4 clusters represented in this pham: ED2, ED, ED1, FC,

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 4 was manually annotated 1 time for cluster ED1.
•Start number 10 was manually annotated 12 times for cluster ED1.
•Start number 11 was manually annotated 1 time for cluster ED1.
•Start number 12 was manually annotated 5 times for cluster ED1.
•Start number 16 was manually annotated 4 times for cluster ED1.
•Start number 17 was manually annotated 6 times for cluster ED1.

Info for manual annotations of cluster ED2:
•Start number 13 was manually annotated 1 time for cluster ED2.
•Start number 14 was manually annotated 9 times for cluster ED2.

•Start number 15 was manually annotated 1 time for cluster ED2.

Gene Information:

Gene: ASegato_13 Start: 4659, Stop: 5057, Start Num: 15
Candidate Starts for ASegato_13:
(Start: 15 @4659 has 1 MA's), (27, 4734), (32, 4764), (45, 4851), (48, 4878), (51, 4890), (62, 4971), (65, 5001), (68, 5010), (71, 5046), (72, 5049),

Gene: Alleb_101 Start: 56509, Stop: 56129, Start Num: 10
Candidate Starts for Alleb_101:
(Start: 10 @56509 has 13 MA's), (18, 56449), (21, 56440), (48, 56287), (58, 56221), (65, 56185), (68, 56176), (71, 56140),

Gene: Alleb_12 Start: 4351, Stop: 4713, Start Num: 17
Candidate Starts for Alleb_12:
(6, 4258), (Start: 17 @4351 has 6 MA's), (29, 4405), (33, 4423), (48, 4555), (55, 4600), (70, 4696), (71, 4702),

Gene: Alleb_10 Start: 3636, Stop: 4010, Start Num: 16
Candidate Starts for Alleb_10:
(8, 3576), (Start: 16 @3636 has 4 MA's), (60, 3921), (63, 3936), (66, 3957), (71, 3999),

Gene: Casablancas_11 Start: 4232, Stop: 4618, Start Num: 14
Candidate Starts for Casablancas_11:
(3, 4151), (Start: 13 @4226 has 1 MA's), (Start: 14 @4232 has 9 MA's), (27, 4307), (32, 4337), (45, 4424), (48, 4451), (54, 4493), (62, 4532), (65, 4562), (68, 4571), (71, 4607),

Gene: Chilliams_235 Start: 150972, Stop: 151376, Start Num: 13
Candidate Starts for Chilliams_235:
(Start: 13 @150972 has 1 MA's), (25, 151044), (43, 151155), (44, 151158), (59, 151278), (64, 151311),

Gene: DejaVu_9 Start: 3447, Stop: 3833, Start Num: 12
Candidate Starts for DejaVu_9:
(Start: 12 @3447 has 5 MA's), (31, 3561), (35, 3579),

Gene: DejaVu_106 Start: 56615, Stop: 56235, Start Num: 10
Candidate Starts for DejaVu_106:
(Start: 10 @56615 has 13 MA's), (19, 56552), (35, 56486), (44, 56435), (62, 56321), (65, 56291), (68, 56282), (71, 56246),

Gene: DustyDino_13 Start: 4681, Stop: 5079, Start Num: 14
Candidate Starts for DustyDino_13:
(3, 4603), (Start: 14 @4681 has 9 MA's), (22, 4735), (27, 4756), (32, 4786), (45, 4873), (48, 4900), (51, 4912), (54, 4954), (62, 4993), (65, 5023), (68, 5032), (71, 5068),

Gene: Erenyeager_10 Start: 4052, Stop: 4450, Start Num: 14
Candidate Starts for Erenyeager_10:
(3, 3974), (Start: 14 @4052 has 9 MA's), (27, 4127), (32, 4157), (45, 4244), (48, 4271), (51, 4283), (62, 4364), (65, 4394), (68, 4403), (71, 4439),

Gene: Fork_10 Start: 3946, Stop: 4332, Start Num: 14
Candidate Starts for Fork_10:
(3, 3865), (9, 3922), (Start: 13 @3940 has 1 MA's), (Start: 14 @3946 has 9 MA's), (27, 4021), (32, 4051), (45, 4138), (48, 4165), (54, 4207), (62, 4246), (65, 4276), (68, 4285), (71, 4321),

Gene: Hortus1_9 Start: 3590, Stop: 3964, Start Num: 16
Candidate Starts for Hortus1_9:
(8, 3530), (Start: 16 @3590 has 4 MA's), (60, 3875), (63, 3890), (66, 3911), (71, 3953),

Gene: Hortus1_11 Start: 4305, Stop: 4667, Start Num: 17
Candidate Starts for Hortus1_11:
(6, 4212), (Start: 17 @4305 has 6 MA's), (29, 4359), (33, 4377), (48, 4509), (55, 4554), (70, 4650), (71, 4656),

Gene: Hortus1_104 Start: 57265, Stop: 56885, Start Num: 10
Candidate Starts for Hortus1_104:
(Start: 10 @57265 has 13 MA's), (18, 57205), (21, 57196), (48, 57043), (58, 56977), (65, 56941), (68, 56932), (71, 56896),

Gene: Hubbs_8 Start: 3631, Stop: 4017, Start Num: 12
Candidate Starts for Hubbs_8:
(Start: 4 @3574 has 1 MA's), (Start: 12 @3631 has 5 MA's), (31, 3745), (35, 3763), (44, 3826), (71, 4006),

Gene: Hubbs_105 Start: 56879, Stop: 56505, Start Num: 10
Candidate Starts for Hubbs_105:
(Start: 10 @56879 has 13 MA's), (18, 56819), (24, 56801), (30, 56768), (55, 56624), (56, 56615), (71, 56516),

Gene: Issa7_11 Start: 3876, Stop: 4262, Start Num: 14
Candidate Starts for Issa7_11:
(Start: 14 @3876 has 9 MA's), (27, 3951), (32, 3981), (45, 4068), (48, 4095), (54, 4137), (62, 4176), (65, 4206), (68, 4215), (72, 4254),

Gene: Jacko_103 Start: 55408, Stop: 54995, Start Num: 11
Candidate Starts for Jacko_103:
(5, 55459), (7, 55444), (Start: 11 @55408 has 1 MA's), (Start: 15 @55390 has 1 MA's), (20, 55342), (23, 55333), (26, 55318), (28, 55315), (40, 55264), (41, 55252), (42, 55222), (46, 55186), (48, 55156), (55, 55111), (61, 55078), (71, 55003), (73, 55000),

Gene: Lupine_104 Start: 56423, Stop: 56046, Start Num: 10
Candidate Starts for Lupine_104:
(Start: 10 @56423 has 13 MA's), (21, 56354), (24, 56345), (45, 56225), (56, 56156), (71, 56057),

Gene: Lupine_8 Start: 3428, Stop: 3817, Start Num: 12
Candidate Starts for Lupine_8:
(2, 3308), (Start: 4 @3371 has 1 MA's), (Start: 12 @3428 has 5 MA's), (35, 3560), (48, 3665), (55, 3707), (67, 3767), (71, 3806),

Gene: Lyell_13 Start: 4396, Stop: 4794, Start Num: 14
Candidate Starts for Lyell_13:

(3, 4318), (Start: 14 @4396 has 9 MA's), (22, 4450), (27, 4471), (32, 4501), (39, 4522), (45, 4588), (48, 4615), (51, 4627), (54, 4669), (62, 4708), (65, 4738), (68, 4747), (71, 4783),

Gene: Musetta_13 Start: 4656, Stop: 5042, Start Num: 14
Candidate Starts for Musetta_13:
(3, 4575), (9, 4632), (Start: 13 @4650 has 1 MA's), (Start: 14 @4656 has 9 MA's), (27, 4731), (32, 4761), (45, 4848), (48, 4875), (54, 4917), (62, 4956), (65, 4986), (68, 4995), (71, 5031),

Gene: Necrophoxinus_13 Start: 4772, Stop: 5158, Start Num: 14
Candidate Starts for Necrophoxinus_13:
(3, 4694), (Start: 14 @4772 has 9 MA's), (22, 4826), (27, 4847), (32, 4877), (45, 4964), (48, 4991), (62, 5072), (65, 5102), (68, 5111), (71, 5147),

Gene: OlinDD_11 Start: 4304, Stop: 4666, Start Num: 17
Candidate Starts for OlinDD_11:
(6, 4211), (Start: 17 @4304 has 6 MA's), (29, 4358), (33, 4376), (48, 4508), (55, 4553), (70, 4649), (71, 4655),

Gene: OlinDD_104 Start: 57270, Stop: 56890, Start Num: 10
Candidate Starts for OlinDD_104:
(Start: 10 @57270 has 13 MA's), (18, 57210), (21, 57201), (48, 57048), (58, 56982), (65, 56946), (68, 56937), (71, 56901),

Gene: OlinDD_9 Start: 3589, Stop: 3963, Start Num: 16
Candidate Starts for OlinDD_9:
(8, 3529), (Start: 16 @3589 has 4 MA's), (60, 3874), (63, 3889), (66, 3910), (71, 3952),

Gene: Pavlo_106 Start: 57274, Stop: 56900, Start Num: 10
Candidate Starts for Pavlo_106:
(Start: 10 @57274 has 13 MA's), (18, 57214), (24, 57196), (30, 57163), (55, 57019), (56, 57010), (71, 56911),

Gene: Pavlo_8 Start: 3702, Stop: 4091, Start Num: 12
Candidate Starts for Pavlo_8:
(1, 3465), (Start: 12 @3702 has 5 MA's), (48, 3939), (55, 3981), (67, 4041), (71, 4080),

Gene: PhillyPhilly_9 Start: 3491, Stop: 3940, Start Num: 4
Candidate Starts for PhillyPhilly_9:
(Start: 4 @3491 has 1 MA's), (Start: 12 @3548 has 5 MA's), (35, 3680), (48, 3785), (49, 3788), (52, 3809), (55, 3830), (71, 3929),

Gene: PhillyPhilly_103 Start: 56263, Stop: 55889, Start Num: 10
Candidate Starts for PhillyPhilly_103:
(Start: 10 @56263 has 13 MA's), (18, 56203), (24, 56185), (30, 56152), (56, 55999), (71, 55900),

Gene: Pioneer3_9 Start: 3622, Stop: 3996, Start Num: 16
Candidate Starts for Pioneer3_9:
(8, 3562), (Start: 16 @3622 has 4 MA's), (60, 3907), (63, 3922), (66, 3943), (67, 3946), (71, 3985),

Gene: Pioneer3_11 Start: 4337, Stop: 4690, Start Num: 17
Candidate Starts for Pioneer3_11:
(6, 4244), (Start: 17 @4337 has 6 MA's), (36, 4418), (37, 4421), (48, 4532), (50, 4541), (55, 4577), (70, 4673), (71, 4679),

Gene: Pioneer3_104 Start: 57068, Stop: 56688, Start Num: 10
Candidate Starts for Pioneer3_104:
(Start: 10 @57068 has 13 MA's), (18, 57008), (21, 56999), (48, 56846), (58, 56780), (65, 56744), (68, 56735), (71, 56699),

Gene: Platte_103 Start: 56852, Stop: 56472, Start Num: 10
Candidate Starts for Platte_103:
(Start: 10 @56852 has 13 MA's), (18, 56792), (21, 56783), (47, 56645), (48, 56630), (58, 56564), (65, 56528), (68, 56519), (71, 56483),

Gene: Platte_11 Start: 4138, Stop: 4491, Start Num: 17
Candidate Starts for Platte_11:
(6, 4045), (Start: 17 @4138 has 6 MA's), (36, 4219), (48, 4333), (50, 4342), (55, 4378), (70, 4474), (71, 4480),

Gene: Roman_8 Start: 3340, Stop: 3726, Start Num: 12
Candidate Starts for Roman_8:
(Start: 4 @3283 has 1 MA's), (Start: 12 @3340 has 5 MA's), (35, 3472), (44, 3535), (71, 3715),

Gene: Roman_107 Start: 57323, Stop: 56949, Start Num: 10
Candidate Starts for Roman_107:
(Start: 10 @57323 has 13 MA's), (18, 57263), (24, 57245), (30, 57212), (55, 57068), (56, 57059), (71, 56960),

Gene: RunningBrook_12 Start: 4681, Stop: 5079, Start Num: 14
Candidate Starts for RunningBrook_12:
(3, 4603), (Start: 14 @4681 has 9 MA's), (22, 4735), (27, 4756), (32, 4786), (45, 4873), (48, 4900), (51, 4912), (54, 4954), (62, 4993), (65, 5023), (68, 5032), (71, 5068),

Gene: StevieWelch_13 Start: 4567, Stop: 4959, Start Num: 13
Candidate Starts for StevieWelch_13:
(3, 4492), (9, 4549), (Start: 13 @4567 has 1 MA's), (Start: 14 @4573 has 9 MA's), (27, 4648), (32, 4678), (45, 4765), (48, 4792), (54, 4834), (62, 4873), (65, 4903), (68, 4912), (71, 4948),

Gene: Tandem_104 Start: 57148, Stop: 56768, Start Num: 10
Candidate Starts for Tandem_104:
(Start: 10 @57148 has 13 MA's), (18, 57088), (21, 57079), (48, 56926), (58, 56860), (65, 56824), (68, 56815), (71, 56779),

Gene: Tandem_11 Start: 4242, Stop: 4604, Start Num: 17
Candidate Starts for Tandem_11:
(6, 4149), (Start: 17 @4242 has 6 MA's), (29, 4296), (33, 4314), (48, 4446), (55, 4491), (70, 4587), (71, 4593),

Gene: Welcome_13 Start: 4652, Stop: 5038, Start Num: 14
Candidate Starts for Welcome_13:
(3, 4574), (Start: 14 @4652 has 9 MA's), (27, 4727), (32, 4757), (45, 4844), (48, 4871), (54, 4913), (62, 4952), (65, 4982), (68, 4991), (71, 5027),

Gene: Wolfstar_110 Start: 58799, Stop: 58431, Start Num: 10
Candidate Starts for Wolfstar_110:

(Start: 10 @58799 has 13 MA's), (18, 58748), (34, 58679), (38, 58670), (44, 58625), (48, 58583), (53, 58556), (57, 58538), (58, 58523), (62, 58517), (69, 58469), (71, 58442),

Gene: Yuma_13 Start: 4555, Stop: 4941, Start Num: 14
Candidate Starts for Yuma_13:
(3, 4474), (9, 4531), (Start: 13 @4549 has 1 MA's), (Start: 14 @4555 has 9 MA's), (27, 4630), (32, 4660), (45, 4747), (48, 4774), (54, 4816), (62, 4855), (65, 4885), (68, 4894), (71, 4930),