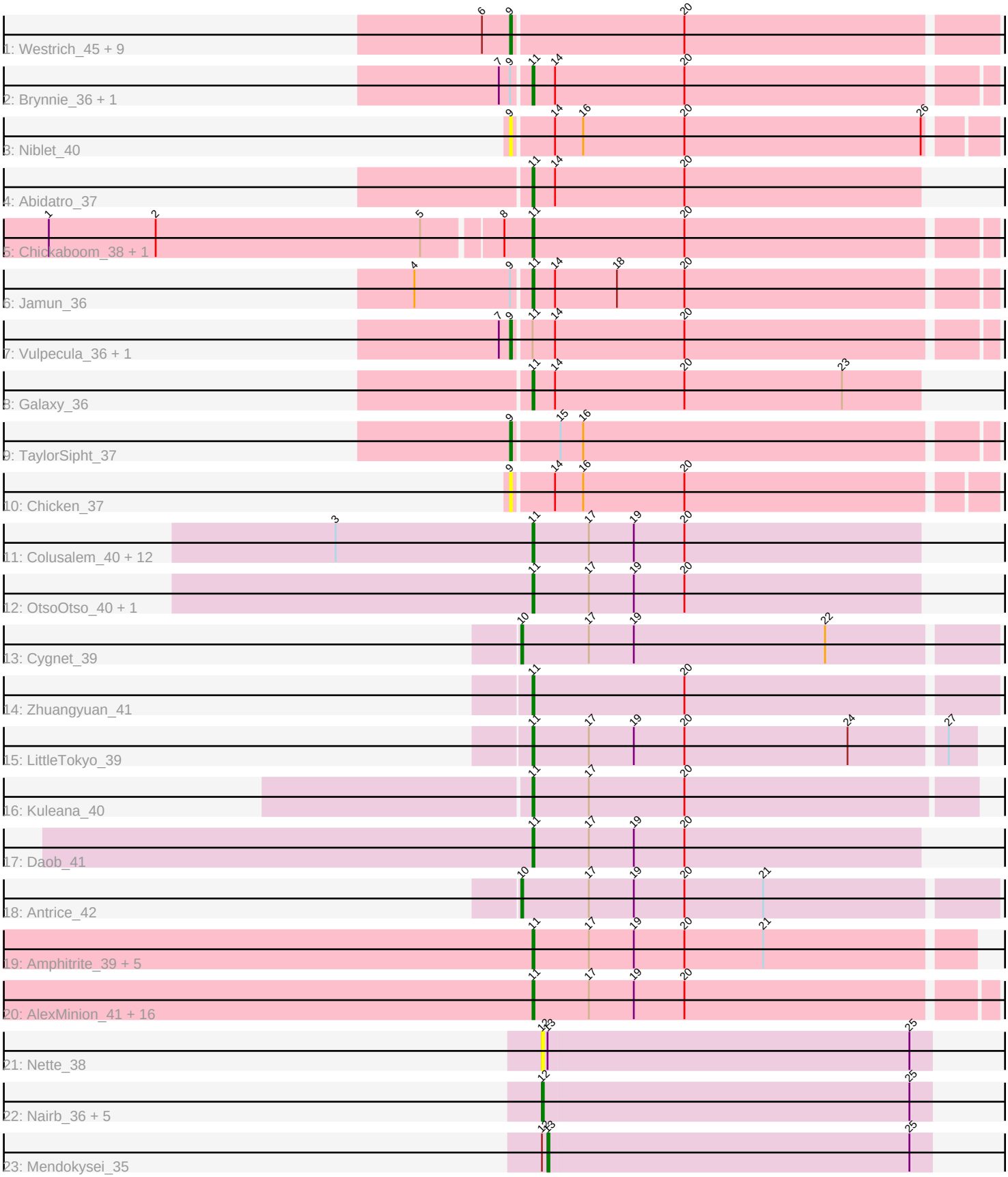
Pham 296523


1: Westrich_45 + 9
2: Brynnie_36 + 1
3: Niblet_40
4: Abidatro_37
5: Chickaboom_38 + 1
6: Jamun_36
7: Vulpecula_36 + 1
8: Galaxy_36
9: TaylorSipht_37
10: Chicken_37
11: Colusalem_40 + 12
12: OtsoOtso_40 + 1
13: Cygnet_39
14: Zhuangyuan_41
15: LittleTokyo_39
16: Kuleana_40
17: Daob_41
18: Antrice_42
19: Amphitrite_39 + 5
20: AlexMinion_41 + 16
21: Nette_38
22: Nairb_36 + 5
23: Mendokysei_35

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 296523 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296523 has 74 members, 23 are drafts.

Phages represented in each track:
• Track 1 : Westrich_45, Amanises_46, Toad24_39, Gravel_46, Orcanus_37, Shen_36, Pelletreau_46, Eesa_36, KendraB23_47, Zixiang_40
• Track 2 : Brynnie_36, Basilisk_37
• Track 3 : Niblet_40
• Track 4 : Abidatro_37
• Track 5 : Chickaboom_38, WileyE_38
• Track 6 : Jamun_36
• Track 7 : Vulpecula_36, Ruchi_36
• Track 8 : Galaxy_36
• Track 9 : TaylorSipht_37
• Track 10 : Chicken_37
• Track 11 : Colusalem_40, PhirstandPhine_48, Amelia_39, Cote_41, Pineda_42, Coral_39, Kepler_41, Melons_41, Jerole_40, Bibble12_43, Lunar_41, HannahPhantana_40, Bedetta_44
• Track 12 : OtsoOtso_40, Polka_39
• Track 13 : Cygnet_39
• Track 14 : Zhuangyuan_41
• Track 15 : LittleTokyo_39
• Track 16 : Kuleana_40
• Track 17 : Daob_41
• Track 18 : Antrice_42
• Track 19 : Amphitrite_39, Glotell_40, PhluffyCoco_39, HamCheese_39, Laphuphu24k_38, Rattail_39
• Track 20 : AlexMinion_41, Leona_38, Fingolfin_39, AdoptaAdorbs_38, AmiCi24_38, Juno112_38, Atlantica_39, Andrew_40, Azaz_40, Camara_39, KHumphrey_39, Renna12_38, StuartMinion_31, RedFox_39, DanHam62_39, Babushka_36, Oppalora_38
• Track 21 : Nette_38
• Track 22 : Nairb_36, Bernal13_37, Whitty_37, ZenTime222_36, Ibrahim_37, RonRayGun_37
• Track 23 : Mendokysei_35

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

The start number called the most often in the published annotations is 11, it was called in 36 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abidatro_37, AdoptaAdorbs_38, AlexMinion_41, Amelia_39, AmiCi24_38, Amphitrite_39, Andrew_40, Atlantica_39, Azaz_40, Babushka_36, Basilisk_37, Bedetta_44, Bibble12_43, Brynnie_36, Camara_39, Chickaboom_38, Colusalem_40, Coral_39, Cote_41, DanHam62_39, Daob_41, Fingolfin_39, Galaxy_36, Glotell_40, HamCheese_39, HannahPhantana_40, Jamun_36, Jerole_40, Juno112_38, KHumphrey_39, Kepler_41, Kuleana_40, Laphuphu24k_38, Leona_38, LittleTokyo_39, Lunar_41, Melons_41, Oppalora_38, OtsoOtso_40, PhirstandPhine_48, PhluffyCoco_39, Pineda_42, Polka_39, Rattail_39, RedFox_39, Renna12_38, StuartMinion_31, WileyE_38, Zhuangyuan_41,

Genes that have the "Most Annotated" start but do not call it:
• Ruchi_36, Vulpecula_36,

Genes that do not have the "Most Annotated" start:
• Amanises_46, Antrice_42, Bernal13_37, Chicken_37, Cygnet_39, Eesa_36, Gravel_46, Ibrahim_37, KendraB23_47, Mendokysei_35, Nairb_36, Nette_38, Niblet_40, Orcanus_37, Pelletreau_46, RonRayGun_37, Shen_36, TaylorSipht_37, Toad24_39, Westrich_45, Whitty_37, ZenTime222_36, Zixiang_40,

Summary by start number:

Start 9:
• Found in 18 of 74 (24.3%) of genes in pham
• Manual Annotations of this start: 6 of 51
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Amanises_46 (AS1), Chicken_37 (AS1), Eesa_36 (AS1), Gravel_46 (AS1), KendraB23_47 (AS1), Niblet_40 (AS1), Orcanus_37 (AS1), Pelletreau_46 (AS1), Ruchi_36 (AS1), Shen_36 (AS1), TaylorSipht_37 (AS1), Toad24_39 (AS1), Vulpecula_36 (AS1), Westrich_45 (AS1), Zixiang_40 (AS1),

Start 10:
• Found in 2 of 74 (2.7%) of genes in pham
• Manual Annotations of this start: 2 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Antrice_42 (AS2), Cygnet_39 (AS2),

Start 11:
• Found in 51 of 74 (68.9%) of genes in pham
• Manual Annotations of this start: 36 of 51
• Called 96.1% of time when present
• Phage (with cluster) where this start called: Abidatro_37 (AS1), AdoptaAdorbs_38 (AS3), AlexMinion_41 (AS3), Amelia_39 (AS2), AmiCi24_38 (AS3), Amphitrite_39 (AS3), Andrew_40 (AS3), Atlantica_39 (AS3), Azaz_40 (AS3), Babushka_36 (AS3), Basilisk_37 (AS1), Bedetta_44 (AS2), Bibble12_43 (AS2), Brynnie_36 (AS1), Camara_39 (AS3), Chickaboom_38 (AS1), Colusalem_40 (AS2), Coral_39 (AS2), Cote_41 (AS2), DanHam62_39 (AS3), Daob_41 (AS2), Fingolfin_39 (AS3), Galaxy_36 (AS1), Glotell_40 (AS3), HamCheese_39 (AS3), HannahPhantana_40 (AS2), Jamun_36 (AS1), Jerole_40 (AS2), Juno112_38 (AS3), KHumphrey_39 (AS3),

Kepler_41 (AS2), Kuleana_40 (AS2), Laphuphu24k_38 (AS3), Leona_38 (AS3), LittleTokyo_39 (AS2), Lunar_41 (AS2), Melons_41 (AS2), Oppalora_38 (AS3), OtsoOtso_40 (AS2), PhirstandPhine_48 (AS2), PhluffyCoco_39 (AS3), Pineda_42 (AS2), Polka_39 (AS2), Rattail_39 (AS3), RedFox_39 (AS3), Renna12_38 (AS3), StuartMinion_31 (AS3), WileyE_38 (AS1), Zhuangyuan_41 (AS2),

Start 12:
• Found in 8 of 74 (10.8%) of genes in pham
• Manual Annotations of this start: 6 of 51
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Bernal13_37 (T), Ibrahim_37 (T), Nairb_36 (T), Nette_38 (T), RonRayGun_37 (T), Whitty_37 (T), ZenTime222_36 (T),

Start 13:
• Found in 2 of 74 (2.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Mendokysei_35 (T),

Summary by clusters:

There are 4 clusters represented in this pham: AS3, AS2, AS1, T,

Info for manual annotations of cluster AS1:
•Start number 9 was manually annotated 6 times for cluster AS1.
•Start number 11 was manually annotated 7 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 10 was manually annotated 2 times for cluster AS2.
•Start number 11 was manually annotated 15 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 11 was manually annotated 14 times for cluster AS3.

Info for manual annotations of cluster T:
•Start number 12 was manually annotated 6 times for cluster T.
•Start number 13 was manually annotated 1 time for cluster T.

Gene Information:

Gene: Abidatro_37 Start: 25098, Stop: 25304, Start Num: 11
Candidate Starts for Abidatro_37:
(Start: 11 @25098 has 36 MA's), (14, 25110), (20, 25179),

Gene: AdoptaAdorbs_38 Start: 24774, Stop: 25004, Start Num: 11
Candidate Starts for AdoptaAdorbs_38:
(Start: 11 @24774 has 36 MA's), (17, 24804), (19, 24828), (20, 24855),

Gene: AlexMinion_41 Start: 24931, Stop: 25170, Start Num: 11
Candidate Starts for AlexMinion_41:
(Start: 11 @24931 has 36 MA's), (17, 24961), (19, 24985), (20, 25012),

Gene: Amanises_46 Start: 26103, Stop: 26360, Start Num: 9
Candidate Starts for Amanises_46:
(6, 26088), (Start: 9 @26103 has 6 MA's), (20, 26193),

Gene: Amelia_39 Start: 24861, Stop: 25067, Start Num: 11
Candidate Starts for Amelia_39:
(3, 24756), (Start: 11 @24861 has 36 MA's), (17, 24891), (19, 24915), (20, 24942),

Gene: AmiCi24_38 Start: 24772, Stop: 25002, Start Num: 11
Candidate Starts for AmiCi24_38:
(Start: 11 @24772 has 36 MA's), (17, 24802), (19, 24826), (20, 24853),

Gene: Amphitrite_39 Start: 24773, Stop: 25003, Start Num: 11
Candidate Starts for Amphitrite_39:
(Start: 11 @24773 has 36 MA's), (17, 24803), (19, 24827), (20, 24854), (21, 24896),

Gene: Andrew_40 Start: 24666, Stop: 24896, Start Num: 11
Candidate Starts for Andrew_40:
(Start: 11 @24666 has 36 MA's), (17, 24696), (19, 24720), (20, 24747),

Gene: Antrice_42 Start: 26009, Stop: 26257, Start Num: 10
Candidate Starts for Antrice_42:
(Start: 10 @26009 has 2 MA's), (17, 26045), (19, 26069), (20, 26096), (21, 26138),

Gene: Atlantica_39 Start: 24774, Stop: 25004, Start Num: 11
Candidate Starts for Atlantica_39:
(Start: 11 @24774 has 36 MA's), (17, 24804), (19, 24828), (20, 24855),

Gene: Azaz_40 Start: 24846, Stop: 25076, Start Num: 11
Candidate Starts for Azaz_40:
(Start: 11 @24846 has 36 MA's), (17, 24876), (19, 24900), (20, 24927),

Gene: Babushka_36 Start: 24696, Stop: 24935, Start Num: 11
Candidate Starts for Babushka_36:
(Start: 11 @24696 has 36 MA's), (17, 24726), (19, 24750), (20, 24777),

Gene: Basilisk_37 Start: 25576, Stop: 25815, Start Num: 11
Candidate Starts for Basilisk_37:
(7, 25561), (Start: 9 @25567 has 6 MA's), (Start: 11 @25576 has 36 MA's), (14, 25588), (20, 25657),

Gene: Bedetta_44 Start: 25008, Stop: 25214, Start Num: 11
Candidate Starts for Bedetta_44:
(3, 24903), (Start: 11 @25008 has 36 MA's), (17, 25038), (19, 25062), (20, 25089),

Gene: Bernal13_37 Start: 30311, Stop: 30517, Start Num: 12
Candidate Starts for Bernal13_37:
(Start: 12 @30311 has 6 MA's), (25, 30506),

Gene: Bibble12_43 Start: 24856, Stop: 25062, Start Num: 11
Candidate Starts for Bibble12_43:
(3, 24751), (Start: 11 @24856 has 36 MA's), (17, 24886), (19, 24910), (20, 24937),

Gene: Brynnie_36 Start: 25454, Stop: 25693, Start Num: 11
Candidate Starts for Brynnie_36:
(7, 25439), (Start: 9 @25445 has 6 MA's), (Start: 11 @25454 has 36 MA's), (14, 25466), (20, 25535),

Gene: Camara_39 Start: 24776, Stop: 25006, Start Num: 11
Candidate Starts for Camara_39:
(Start: 11 @24776 has 36 MA's), (17, 24806), (19, 24830), (20, 24857),

Gene: Chickaboom_38 Start: 25076, Stop: 25315, Start Num: 11
Candidate Starts for Chickaboom_38:
(1, 24824), (2, 24881), (5, 25022), (8, 25061), (Start: 11 @25076 has 36 MA's), (20, 25157),

Gene: Chicken_37 Start: 25407, Stop: 25655, Start Num: 9
Candidate Starts for Chicken_37:
(Start: 9 @25407 has 6 MA's), (14, 25428), (16, 25443), (20, 25497),

Gene: Colusalem_40 Start: 24838, Stop: 25044, Start Num: 11
Candidate Starts for Colusalem_40:
(3, 24733), (Start: 11 @24838 has 36 MA's), (17, 24868), (19, 24892), (20, 24919),

Gene: Coral_39 Start: 24709, Stop: 24915, Start Num: 11
Candidate Starts for Coral_39:
(3, 24604), (Start: 11 @24709 has 36 MA's), (17, 24739), (19, 24763), (20, 24790),

Gene: Cote_41 Start: 25186, Stop: 25392, Start Num: 11
Candidate Starts for Cote_41:
(3, 25081), (Start: 11 @25186 has 36 MA's), (17, 25216), (19, 25240), (20, 25267),

Gene: Cygnet_39 Start: 25607, Stop: 25855, Start Num: 10
Candidate Starts for Cygnet_39:
(Start: 10 @25607 has 2 MA's), (17, 25643), (19, 25667), (22, 25769),

Gene: DanHam62_39 Start: 24773, Stop: 25003, Start Num: 11
Candidate Starts for DanHam62_39:
(Start: 11 @24773 has 36 MA's), (17, 24803), (19, 24827), (20, 24854),

Gene: Daob_41 Start: 25194, Stop: 25400, Start Num: 11
Candidate Starts for Daob_41:
(Start: 11 @25194 has 36 MA's), (17, 25224), (19, 25248), (20, 25275),

Gene: Eesa_36 Start: 25937, Stop: 26194, Start Num: 9
Candidate Starts for Eesa_36:
(6, 25922), (Start: 9 @25937 has 6 MA's), (20, 26027),

Gene: Fingolfin_39 Start: 24776, Stop: 25006, Start Num: 11
Candidate Starts for Fingolfin_39:
(Start: 11 @24776 has 36 MA's), (17, 24806), (19, 24830), (20, 24857),

Gene: Galaxy_36 Start: 24864, Stop: 25070, Start Num: 11
Candidate Starts for Galaxy_36:
(Start: 11 @24864 has 36 MA's), (14, 24876), (20, 24945), (23, 25029),

Gene: Glotell_40 Start: 24932, Stop: 25162, Start Num: 11

Candidate Starts for Glotell_40:
(Start: 11 @24932 has 36 MA's), (17, 24962), (19, 24986), (20, 25013), (21, 25055),

Gene: Gravel_46 Start: 25916, Stop: 26167, Start Num: 9
Candidate Starts for Gravel_46:
(6, 25901), (Start: 9 @25916 has 6 MA's), (20, 26006),

Gene: HamCheese_39 Start: 24760, Stop: 24990, Start Num: 11
Candidate Starts for HamCheese_39:
(Start: 11 @24760 has 36 MA's), (17, 24790), (19, 24814), (20, 24841), (21, 24883),

Gene: HannahPhantana_40 Start: 24856, Stop: 25062, Start Num: 11
Candidate Starts for HannahPhantana_40:
(3, 24751), (Start: 11 @24856 has 36 MA's), (17, 24886), (19, 24910), (20, 24937),

Gene: Ibrahim_37 Start: 30757, Stop: 30963, Start Num: 12
Candidate Starts for Ibrahim_37:
(Start: 12 @30757 has 6 MA's), (25, 30952),

Gene: Jamun_36 Start: 25116, Stop: 25355, Start Num: 11
Candidate Starts for Jamun_36:
(4, 25056), (Start: 9 @25107 has 6 MA's), (Start: 11 @25116 has 36 MA's), (14, 25128), (18, 25161), (20, 25197),

Gene: Jerole_40 Start: 24980, Stop: 25186, Start Num: 11
Candidate Starts for Jerole_40:
(3, 24875), (Start: 11 @24980 has 36 MA's), (17, 25010), (19, 25034), (20, 25061),

Gene: Juno112_38 Start: 24776, Stop: 25006, Start Num: 11
Candidate Starts for Juno112_38:
(Start: 11 @24776 has 36 MA's), (17, 24806), (19, 24830), (20, 24857),

Gene: KHumphrey_39 Start: 24775, Stop: 25005, Start Num: 11
Candidate Starts for KHumphrey_39:
(Start: 11 @24775 has 36 MA's), (17, 24805), (19, 24829), (20, 24856),

Gene: KendraB23_47 Start: 26103, Stop: 26360, Start Num: 9
Candidate Starts for KendraB23_47:
(6, 26088), (Start: 9 @26103 has 6 MA's), (20, 26193),

Gene: Kepler_41 Start: 25604, Stop: 25810, Start Num: 11
Candidate Starts for Kepler_41:
(3, 25499), (Start: 11 @25604 has 36 MA's), (17, 25634), (19, 25658), (20, 25685),

Gene: Kuleana_40 Start: 25028, Stop: 25261, Start Num: 11
Candidate Starts for Kuleana_40:
(Start: 11 @25028 has 36 MA's), (17, 25058), (20, 25109),

Gene: Laphuphu24k_38 Start: 24760, Stop: 24990, Start Num: 11
Candidate Starts for Laphuphu24k_38:
(Start: 11 @24760 has 36 MA's), (17, 24790), (19, 24814), (20, 24841), (21, 24883),

Gene: Leona_38 Start: 24847, Stop: 25077, Start Num: 11

Candidate Starts for Leona_38:
(Start: 11 @24847 has 36 MA's), (17, 24877), (19, 24901), (20, 24928),

Gene: LittleTokyo_39 Start: 24706, Stop: 24936, Start Num: 11
Candidate Starts for LittleTokyo_39:
(Start: 11 @24706 has 36 MA's), (17, 24736), (19, 24760), (20, 24787), (24, 24874), (27, 24922),

Gene: Lunar_41 Start: 25520, Stop: 25726, Start Num: 11
Candidate Starts for Lunar_41:
(3, 25415), (Start: 11 @25520 has 36 MA's), (17, 25550), (19, 25574), (20, 25601),

Gene: Melons_41 Start: 25334, Stop: 25540, Start Num: 11
Candidate Starts for Melons_41:
(3, 25229), (Start: 11 @25334 has 36 MA's), (17, 25364), (19, 25388), (20, 25415),

Gene: Mendokysei_35 Start: 29852, Stop: 30055, Start Num: 13
Candidate Starts for Mendokysei_35:
(Start: 12 @29849 has 6 MA's), (Start: 13 @29852 has 1 MA's), (25, 30044),

Gene: Nairb_36 Start: 30311, Stop: 30517, Start Num: 12
Candidate Starts for Nairb_36:
(Start: 12 @30311 has 6 MA's), (25, 30506),

Gene: Nette_38 Start: 29858, Stop: 30064, Start Num: 12
Candidate Starts for Nette_38:
(Start: 12 @29858 has 6 MA's), (Start: 13 @29861 has 1 MA's), (25, 30053),

Gene: Niblet_40 Start: 25494, Stop: 25742, Start Num: 9
Candidate Starts for Niblet_40:
(Start: 9 @25494 has 6 MA's), (14, 25515), (16, 25530), (20, 25584), (26, 25710),

Gene: Oppalora_38 Start: 24774, Stop: 25004, Start Num: 11
Candidate Starts for Oppalora_38:
(Start: 11 @24774 has 36 MA's), (17, 24804), (19, 24828), (20, 24855),

Gene: Orcanus_37 Start: 25466, Stop: 25717, Start Num: 9
Candidate Starts for Orcanus_37:
(6, 25451), (Start: 9 @25466 has 6 MA's), (20, 25556),

Gene: OtsoOtso_40 Start: 24710, Stop: 24916, Start Num: 11
Candidate Starts for OtsoOtso_40:
(Start: 11 @24710 has 36 MA's), (17, 24740), (19, 24764), (20, 24791),

Gene: Pelletreau_46 Start: 25916, Stop: 26167, Start Num: 9
Candidate Starts for Pelletreau_46:
(6, 25901), (Start: 9 @25916 has 6 MA's), (20, 26006),

Gene: PhirstandPhine_48 Start: 25480, Stop: 25686, Start Num: 11
Candidate Starts for PhirstandPhine_48:
(3, 25375), (Start: 11 @25480 has 36 MA's), (17, 25510), (19, 25534), (20, 25561),

Gene: PhluffyCoco_39 Start: 24772, Stop: 25002, Start Num: 11
Candidate Starts for PhluffyCoco_39:

(Start: 11 @24772 has 36 MA's), (17, 24802), (19, 24826), (20, 24853), (21, 24895),

Gene: Pineda_42 Start: 25006, Stop: 25212, Start Num: 11
Candidate Starts for Pineda_42:
(3, 24901), (Start: 11 @25006 has 36 MA's), (17, 25036), (19, 25060), (20, 25087),

Gene: Polka_39 Start: 24710, Stop: 24916, Start Num: 11
Candidate Starts for Polka_39:
(Start: 11 @24710 has 36 MA's), (17, 24740), (19, 24764), (20, 24791),

Gene: Rattail_39 Start: 24858, Stop: 25088, Start Num: 11
Candidate Starts for Rattail_39:
(Start: 11 @24858 has 36 MA's), (17, 24888), (19, 24912), (20, 24939), (21, 24981),

Gene: RedFox_39 Start: 24771, Stop: 25001, Start Num: 11
Candidate Starts for RedFox_39:
(Start: 11 @24771 has 36 MA's), (17, 24801), (19, 24825), (20, 24852),

Gene: Renna12_38 Start: 24811, Stop: 25059, Start Num: 11
Candidate Starts for Renna12_38:
(Start: 11 @24811 has 36 MA's), (17, 24841), (19, 24865), (20, 24892),

Gene: RonRayGun_37 Start: 30757, Stop: 30963, Start Num: 12
Candidate Starts for RonRayGun_37:
(Start: 12 @30757 has 6 MA's), (25, 30952),

Gene: Ruchi_36 Start: 25513, Stop: 25761, Start Num: 9
Candidate Starts for Ruchi_36:
(7, 25507), (Start: 9 @25513 has 6 MA's), (Start: 11 @25522 has 36 MA's), (14, 25534), (20, 25603),

Gene: Shen_36 Start: 24017, Stop: 24274, Start Num: 9
Candidate Starts for Shen_36:
(6, 24002), (Start: 9 @24017 has 6 MA's), (20, 24107),

Gene: StuartMinion_31 Start: 21830, Stop: 22069, Start Num: 11
Candidate Starts for StuartMinion_31:
(Start: 11 @21830 has 36 MA's), (17, 21860), (19, 21884), (20, 21911),

Gene: TaylorSipht_37 Start: 24886, Stop: 25134, Start Num: 9
Candidate Starts for TaylorSipht_37:
(Start: 9 @24886 has 6 MA's), (15, 24910), (16, 24922),

Gene: Toad24_39 Start: 26156, Stop: 26413, Start Num: 9
Candidate Starts for Toad24_39:
(6, 26141), (Start: 9 @26156 has 6 MA's), (20, 26246),

Gene: Vulpecula_36 Start: 25190, Stop: 25438, Start Num: 9
Candidate Starts for Vulpecula_36:
(7, 25184), (Start: 9 @25190 has 6 MA's), (Start: 11 @25199 has 36 MA's), (14, 25211), (20, 25280),

Gene: Westrich_45 Start: 25840, Stop: 26091, Start Num: 9
Candidate Starts for Westrich_45:
(6, 25825), (Start: 9 @25840 has 6 MA's), (20, 25930),

Gene: Whitty_37 Start: 30311, Stop: 30517, Start Num: 12
Candidate Starts for Whitty_37:
(Start: 12 @30311 has 6 MA's), (25, 30506),

Gene: WileyE_38 Start: 25076, Stop: 25315, Start Num: 11
Candidate Starts for WileyE_38:
(1, 24824), (2, 24881), (5, 25022), (8, 25061), (Start: 11 @25076 has 36 MA's), (20, 25157),

Gene: ZenTime222_36 Start: 30311, Stop: 30517, Start Num: 12
Candidate Starts for ZenTime222_36:
(Start: 12 @30311 has 6 MA's), (25, 30506),

Gene: Zhuangyuan_41 Start: 25541, Stop: 25783, Start Num: 11
Candidate Starts for Zhuangyuan_41:
(Start: 11 @25541 has 36 MA's), (20, 25622),

Gene: Zixiang_40 Start: 25521, Stop: 25778, Start Num: 9
Candidate Starts for Zixiang_40:
(6, 25506), (Start: 9 @25521 has 6 MA's), (20, 25611),