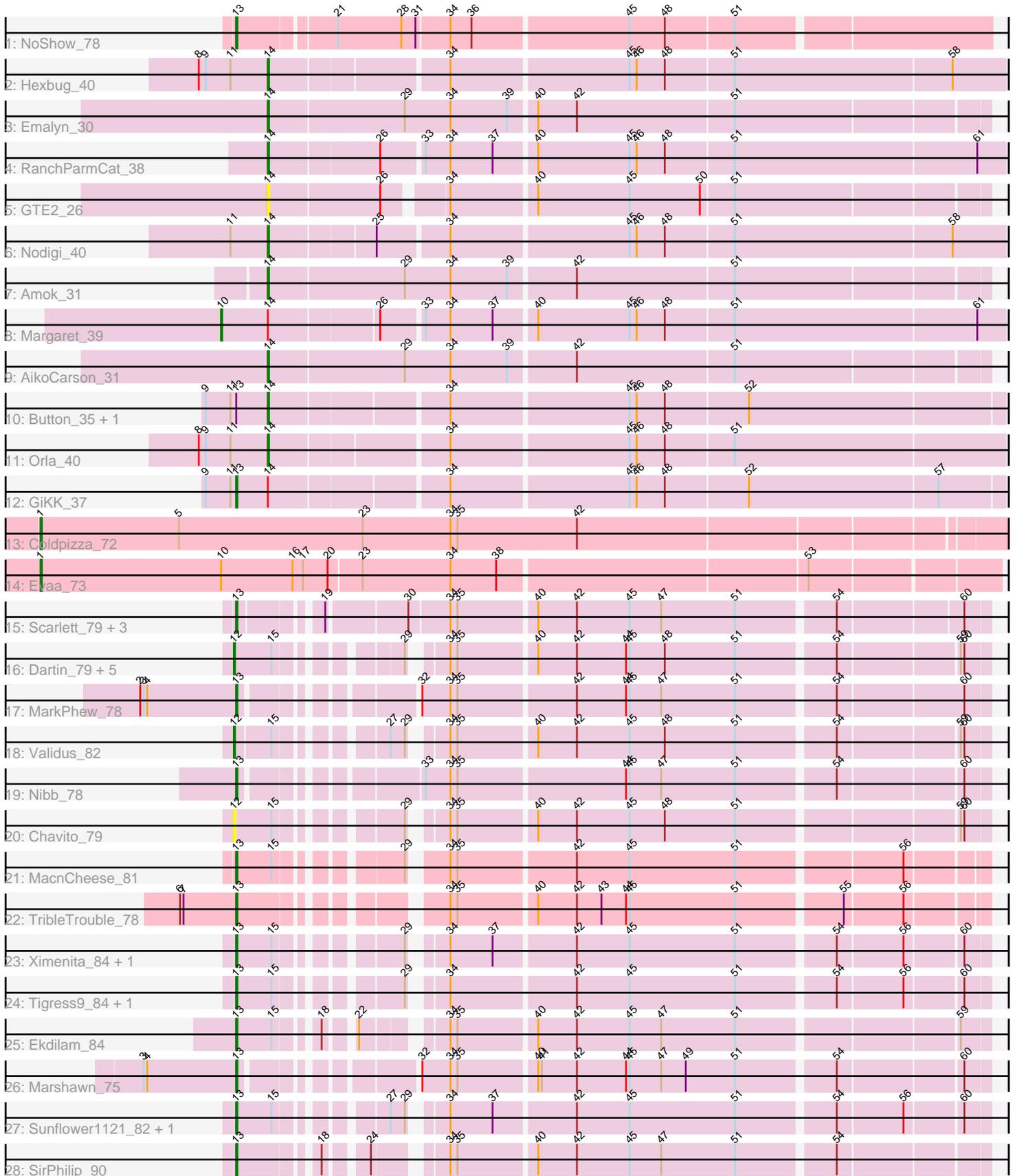# Pham 283978

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 283978 Report

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

Pham number 283978 has 40 members, 6 are drafts.

Phages represented in each track:
• Track 1 : NoShow_78
• Track 2 : Hexbug_40
• Track 3 : Emalyn_30
• Track 4 : RanchParmCat_38
• Track 5 : GTE2_26
• Track 6 : Nodigi_40
• Track 7 : Amok_31
• Track 8 : Margaret_39
• Track 9 : AikoCarson_31
• Track 10 : Button_35, Jamzy_37
• Track 11 : Orla_40
• Track 12 : GiKK_37
• Track 13 : Coldpizza_72
• Track 14 : Evaa_73
• Track 15 : Scarlett_79, LeMond_78, KiSi_79, Oscar_78
• Track 16 : Dartin_79, Shaobing_79, Peanam_80, Richo_79, Niklas_80, McMater_79
• Track 17 : MarkPhew_78
• Track 18 : Validus_82
• Track 19 : Nibb_78
• Track 20 : Chavito_79
• Track 21 : MacnCheese_81
• Track 22 : TribleTrouble_78
• Track 23 : Ximenita_84, Syra333_82
• Track 24 : Tigress9_84, Krueger_83
• Track 25 : Ekdilam_84
• Track 26 : Marshawn_75
• Track 27 : Sunflower1121_82, Shadow1_83
• Track 28 : SirPhilip_90


***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 18 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ekdilam_84, GiKK_37, KiSi_79, Krueger_83, LeMond_78, MacnCheese_81, MarkPhew_78, Marshawn_75, Nibb_78, NoShow_78, Oscar_78, Scarlett_79, Shadow1_83, SirPhilip_90, Sunflower1121_82, Syra333_82, Tigress9_84, TribleTrouble_78, Ximenita_84,

Genes that have the "Most Annotated" start but do not call it:
• Button_35, Jamzy_37,

Genes that do not have the "Most Annotated" start:
• AikoCarson_31, Amok_31, Chavito_79, Coldpizza_72, Dartin_79, Emalyn_30, Evaa_73, GTE2_26, Hexbug_40, Margaret_39, McMater_79, Niklas_80, Nodigi_40, Orla_40, Peanam_80, RanchParmCat_38, Richo_79, Shaobing_79, Validus_82,

**Summary by start number:**

Start 1:
• Found in 2 of 40 ( 5.0% ) of genes in pham
• Manual Annotations of this start: 2 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Coldpizza_72 (DR), Evaa_73 (DR),

Start 10:
• Found in 2 of 40 ( 5.0% ) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Margaret_39 (CT),

Start 12:
• Found in 8 of 40 ( 20.0% ) of genes in pham
• Manual Annotations of this start: 4 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chavito_79 (K1), Dartin_79 (K1), McMater_79 (K1), Niklas_80 (K1), Peanam_80 (K1), Richo_79 (K1), Shaobing_79 (K1), Validus_82 (K1),

Start 13:
• Found in 21 of 40 ( 52.5% ) of genes in pham
• Manual Annotations of this start: 18 of 34
• Called 90.5% of time when present
• Phage (with cluster) where this start called: Ekdilam_84 (K6), GiKK_37 (CT), KiSi_79 (K1), Krueger_83 (K6), LeMond_78 (K1), MacnCheese_81 (K3), MarkPhew_78 (K1), Marshawn_75 (K6), Nibb_78 (K1), NoShow_78 (AB), Oscar_78 (K1), Scarlett_79 (K1), Shadow1_83 (K6), SirPhilip_90 (K6), Sunflower1121_82 (K6), Syra333_82 (K6), Tigress9_84 (K6), TribleTrouble_78 (K3), Ximenita_84 (K6),

Start 14:
• Found in 12 of 40 ( 30.0% ) of genes in pham
• Manual Annotations of this start: 9 of 34
• Called 83.3% of time when present
• Phage (with cluster) where this start called: AikoCarson_31 (CT), Amok_31 (CT), Button_35 (CT), Emalyn_30 (CT), GTE2_26 (CT), Hexbug_40 (CT), Jamzy_37 (CT), Nodigi_40 (CT), Orla_40 (CT), RanchParmCat_38 (CT),

**Summary by clusters:**

There are 6 clusters represented in this pham: AB, K3, K1, K6, DR, CT,

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

Info for manual annotations of cluster CT:
•Start number 10 was manually annotated 1 time for cluster CT.
•Start number 13 was manually annotated 1 time for cluster CT.
•Start number 14 was manually annotated 9 times for cluster CT.

Info for manual annotations of cluster DR:
•Start number 1 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster K1:
•Start number 12 was manually annotated 4 times for cluster K1.
•Start number 13 was manually annotated 6 times for cluster K1.

Info for manual annotations of cluster K3:
•Start number 13 was manually annotated 2 times for cluster K3.

Info for manual annotations of cluster K6:
•Start number 13 was manually annotated 8 times for cluster K6.


*Gene Information:*

Gene: AikoCarson_31 Start: 24720, Stop: 24127, Start Num: 14
Candidate Starts for AikoCarson_31:
(Start: 14 @24720 has 9 MA's), (29, 24606), (34, 24567), (39, 24519), (42, 24465), (51, 24333),

Gene: Amok_31 Start: 24679, Stop: 24086, Start Num: 14
Candidate Starts for Amok_31:
(Start: 14 @24679 has 9 MA's), (29, 24565), (34, 24526), (39, 24478), (42, 24424), (51, 24292),

Gene: Button_35 Start: 26057, Stop: 25458, Start Num: 14
Candidate Starts for Button_35:
(9, 26108), (11, 26087), (Start: 13 @26084 has 18 MA's), (Start: 14 @26057 has 9 MA's), (34, 25916),
(45, 25769), (46, 25763), (48, 25739), (52, 25670),

Gene: Chavito_79 Start: 52300, Stop: 52866, Start Num: 12
Candidate Starts for Chavito_79:
(Start: 12 @52300 has 4 MA's), (15, 52330), (29, 52411), (34, 52432), (35, 52438), (40, 52501), (42,
52534), (45, 52579), (48, 52609), (51, 52669), (59, 52843), (60, 52846),

Gene: Coldpizza_72 Start: 58071, Stop: 57268, Start Num: 1
Candidate Starts for Coldpizza_72:
(Start: 1 @58071 has 2 MA's), (5, 57954), (23, 57798), (34, 57723), (35, 57717), (42, 57615),

Gene: Dartin_79 Start: 51840, Stop: 52403, Start Num: 12

Candidate Starts for Dartin_79:
(Start: 12 @51840 has 4 MA's), (15, 51870), (29, 51948), (34, 51969), (35, 51975), (40, 52038), (42, 52071), (44, 52113), (45, 52116), (48, 52146), (51, 52206), (54, 52284), (59, 52380), (60, 52383),

Gene: Ekdilam_84 Start: 58038, Stop: 58601, Start Num: 13
Candidate Starts for Ekdilam_84:
(Start: 13 @58038 has 18 MA's), (15, 58068), (18, 58095), (22, 58113), (34, 58167), (35, 58173), (40, 58236), (42, 58269), (45, 58314), (47, 58341), (51, 58404), (59, 58578),

Gene: Emalyn_30 Start: 23911, Stop: 23318, Start Num: 14
Candidate Starts for Emalyn_30:
(Start: 14 @23911 has 9 MA's), (29, 23797), (34, 23758), (39, 23710), (40, 23689), (42, 23656), (51, 23524),

Gene: Evaa_73 Start: 55309, Stop: 54518, Start Num: 1
Candidate Starts for Evaa_73:
(Start: 1 @55309 has 2 MA's), (Start: 10 @55156 has 1 MA's), (16, 55096), (17, 55087), (20, 55066), (23, 55039), (34, 54964), (38, 54925), (53, 54670),

Gene: GTE2_26 Start: 24090, Stop: 23512, Start Num: 14
Candidate Starts for GTE2_26:
(Start: 14 @24090 has 9 MA's), (26, 23997), (34, 23952), (40, 23883), (45, 23805), (50, 23745), (51, 23718),

Gene: GiKK_37 Start: 26414, Stop: 25788, Start Num: 13
Candidate Starts for GiKK_37:
(9, 26438), (11, 26417), (Start: 13 @26414 has 18 MA's), (Start: 14 @26387 has 9 MA's), (34, 26246), (45, 26099), (46, 26093), (48, 26069), (52, 26000), (57, 25841),

Gene: Hexbug_40 Start: 28044, Stop: 27442, Start Num: 14
Candidate Starts for Hexbug_40:
(8, 28101), (9, 28095), (11, 28074), (Start: 14 @28044 has 9 MA's), (34, 27903), (45, 27756), (46, 27750), (48, 27726), (51, 27669), (58, 27486),

Gene: Jamzy_37 Start: 26370, Stop: 25771, Start Num: 14
Candidate Starts for Jamzy_37:
(9, 26421), (11, 26400), (Start: 13 @26397 has 18 MA's), (Start: 14 @26370 has 9 MA's), (34, 26229), (45, 26082), (46, 26076), (48, 26052), (52, 25983),

Gene: KiSi_79 Start: 51113, Stop: 51700, Start Num: 13
Candidate Starts for KiSi_79:
(Start: 13 @51113 has 18 MA's), (19, 51170), (30, 51233), (34, 51266), (35, 51272), (40, 51335), (42, 51368), (45, 51413), (47, 51440), (51, 51503), (54, 51581), (60, 51680),

Gene: Krueger_83 Start: 51452, Stop: 52018, Start Num: 13
Candidate Starts for Krueger_83:
(Start: 13 @51452 has 18 MA's), (15, 51482), (29, 51563), (34, 51584), (42, 51686), (45, 51731), (51, 51821), (54, 51899), (56, 51953), (60, 51998),

Gene: LeMond_78 Start: 50717, Stop: 51304, Start Num: 13
Candidate Starts for LeMond_78:
(Start: 13 @50717 has 18 MA's), (19, 50774), (30, 50837), (34, 50870), (35, 50876), (40, 50939), (42, 50972), (45, 51017), (47, 51044), (51, 51107), (54, 51185), (60, 51284),

Gene: MacnCheese_81 Start: 51963, Stop: 52529, Start Num: 13
Candidate Starts for MacnCheese_81:
(Start: 13 @51963 has 18 MA's), (15, 51993), (29, 52074), (34, 52098), (35, 52104), (42, 52200), (45, 52245), (51, 52335), (56, 52467),

Gene: Margaret_39 Start: 27083, Stop: 26442, Start Num: 10
Candidate Starts for Margaret_39:
(Start: 10 @27083 has 1 MA's), (Start: 14 @27044 has 9 MA's), (26, 26957), (33, 26924), (34, 26903), (37, 26867), (40, 26834), (45, 26756), (46, 26750), (48, 26726), (51, 26669), (61, 26465),

Gene: MarkPhew_78 Start: 50597, Stop: 51175, Start Num: 13
Candidate Starts for MarkPhew_78:
(2, 50516), (3, 50519), (4, 50522), (Start: 13 @50597 has 18 MA's), (32, 50714), (34, 50738), (35, 50744), (42, 50840), (44, 50882), (45, 50885), (47, 50912), (51, 50975), (54, 51053), (60, 51155),

Gene: Marshawn_75 Start: 50991, Stop: 51566, Start Num: 13
Candidate Starts for Marshawn_75:
(3, 50913), (4, 50916), (Start: 13 @50991 has 18 MA's), (32, 51108), (34, 51132), (35, 51138), (40, 51201), (41, 51204), (42, 51234), (44, 51276), (45, 51279), (47, 51306), (49, 51327), (51, 51369), (54, 51447), (60, 51546),

Gene: McMater_79 Start: 51840, Stop: 52403, Start Num: 12
Candidate Starts for McMater_79:
(Start: 12 @51840 has 4 MA's), (15, 51870), (29, 51948), (34, 51969), (35, 51975), (40, 52038), (42, 52071), (44, 52113), (45, 52116), (48, 52146), (51, 52206), (54, 52284), (59, 52380), (60, 52383),

Gene: Nibb_78 Start: 50412, Stop: 50990, Start Num: 13
Candidate Starts for Nibb_78:
(Start: 13 @50412 has 18 MA's), (33, 50535), (34, 50556), (35, 50562), (44, 50700), (45, 50703), (47, 50730), (51, 50793), (54, 50871), (60, 50970),

Gene: Niklas_80 Start: 51901, Stop: 52464, Start Num: 12
Candidate Starts for Niklas_80:
(Start: 12 @51901 has 4 MA's), (15, 51931), (29, 52009), (34, 52030), (35, 52036), (40, 52099), (42, 52132), (44, 52174), (45, 52177), (48, 52207), (51, 52267), (54, 52345), (59, 52441), (60, 52444),

Gene: NoShow_78 Start: 51191, Stop: 51799, Start Num: 13
Candidate Starts for NoShow_78:
(Start: 13 @51191 has 18 MA's), (21, 51266), (28, 51320), (31, 51332), (34, 51359), (36, 51377), (45, 51506), (48, 51536), (51, 51593),

Gene: Nodigi_40 Start: 28027, Stop: 27425, Start Num: 14
Candidate Starts for Nodigi_40:
(11, 28057), (Start: 14 @28027 has 9 MA's), (25, 27943), (34, 27886), (45, 27739), (46, 27733), (48, 27709), (51, 27652), (58, 27469),

Gene: Orla_40 Start: 28015, Stop: 27413, Start Num: 14
Candidate Starts for Orla_40:
(8, 28072), (9, 28066), (11, 28045), (Start: 14 @28015 has 9 MA's), (34, 27874), (45, 27727), (46, 27721), (48, 27697), (51, 27640),

Gene: Oscar_78 Start: 50636, Stop: 51223, Start Num: 13

Candidate Starts for Oscar_78:
(Start: 13 @50636 has 18 MA's), (19, 50693), (30, 50756), (34, 50789), (35, 50795), (40, 50858), (42, 50891), (45, 50936), (47, 50963), (51, 51026), (54, 51104), (60, 51203),

Gene: Peanam_80 Start: 51859, Stop: 52422, Start Num: 12
Candidate Starts for Peanam_80:
(Start: 12 @51859 has 4 MA's), (15, 51889), (29, 51967), (34, 51988), (35, 51994), (40, 52057), (42, 52090), (44, 52132), (45, 52135), (48, 52165), (51, 52225), (54, 52303), (59, 52399), (60, 52402),

Gene: RanchParmCat_38 Start: 27186, Stop: 26581, Start Num: 14
Candidate Starts for RanchParmCat_38:
(Start: 14 @27186 has 9 MA's), (26, 27096), (33, 27063), (34, 27042), (37, 27006), (40, 26973), (45, 26895), (46, 26889), (48, 26865), (51, 26808), (61, 26604),

Gene: Richo_79 Start: 51840, Stop: 52403, Start Num: 12
Candidate Starts for Richo_79:
(Start: 12 @51840 has 4 MA's), (15, 51870), (29, 51948), (34, 51969), (35, 51975), (40, 52038), (42, 52071), (44, 52113), (45, 52116), (48, 52146), (51, 52206), (54, 52284), (59, 52380), (60, 52383),

Gene: Scarlett_79 Start: 50972, Stop: 51559, Start Num: 13
Candidate Starts for Scarlett_79:
(Start: 13 @50972 has 18 MA's), (19, 51029), (30, 51092), (34, 51125), (35, 51131), (40, 51194), (42, 51227), (45, 51272), (47, 51299), (51, 51362), (54, 51440), (60, 51539),

Gene: Shadow1_83 Start: 51593, Stop: 52159, Start Num: 13
Candidate Starts for Shadow1_83:
(Start: 13 @51593 has 18 MA's), (15, 51623), (27, 51692), (29, 51704), (34, 51725), (37, 51761), (42, 51827), (45, 51872), (51, 51962), (54, 52040), (56, 52094), (60, 52139),

Gene: Shaobing_79 Start: 51876, Stop: 52439, Start Num: 12
Candidate Starts for Shaobing_79:
(Start: 12 @51876 has 4 MA's), (15, 51906), (29, 51984), (34, 52005), (35, 52011), (40, 52074), (42, 52107), (44, 52149), (45, 52152), (48, 52182), (51, 52242), (54, 52320), (59, 52416), (60, 52419),

Gene: SirPhilip_90 Start: 57157, Stop: 57723, Start Num: 13
Candidate Starts for SirPhilip_90:
(Start: 13 @57157 has 18 MA's), (18, 57214), (24, 57241), (34, 57289), (35, 57295), (40, 57358), (42, 57391), (45, 57436), (47, 57463), (51, 57526), (54, 57604),

Gene: Sunflower1121_82 Start: 51137, Stop: 51703, Start Num: 13
Candidate Starts for Sunflower1121_82:
(Start: 13 @51137 has 18 MA's), (15, 51167), (27, 51236), (29, 51248), (34, 51269), (37, 51305), (42, 51371), (45, 51416), (51, 51506), (54, 51584), (56, 51638), (60, 51683),

Gene: Syra333_82 Start: 51468, Stop: 52034, Start Num: 13
Candidate Starts for Syra333_82:
(Start: 13 @51468 has 18 MA's), (15, 51498), (29, 51579), (34, 51600), (37, 51636), (42, 51702), (45, 51747), (51, 51837), (54, 51915), (56, 51969), (60, 52014),

Gene: Tigress9_84 Start: 51780, Stop: 52346, Start Num: 13
Candidate Starts for Tigress9_84:
(Start: 13 @51780 has 18 MA's), (15, 51810), (29, 51891), (34, 51912), (42, 52014), (45, 52059), (51, 52149), (54, 52227), (56, 52281), (60, 52326),

Gene: TribleTrouble_78 Start: 51156, Stop: 51722, Start Num: 13
Candidate Starts for TribleTrouble_78:
(6, 51108), (7, 51111), (Start: 13 @51156 has 18 MA's), (34, 51291), (35, 51297), (40, 51360), (42, 51393), (43, 51414), (44, 51435), (45, 51438), (51, 51528), (55, 51612), (56, 51660),

Gene: Validus_82 Start: 52159, Stop: 52722, Start Num: 12
Candidate Starts for Validus_82:
(Start: 12 @52159 has 4 MA's), (15, 52186), (27, 52255), (29, 52267), (34, 52288), (35, 52294), (40, 52357), (42, 52390), (45, 52435), (48, 52465), (51, 52525), (54, 52603), (59, 52699), (60, 52702),

Gene: Ximenita_84 Start: 51791, Stop: 52357, Start Num: 13
Candidate Starts for Ximenita_84:
(Start: 13 @51791 has 18 MA's), (15, 51821), (29, 51902), (34, 51923), (37, 51959), (42, 52025), (45, 52070), (51, 52160), (54, 52238), (56, 52292), (60, 52337),