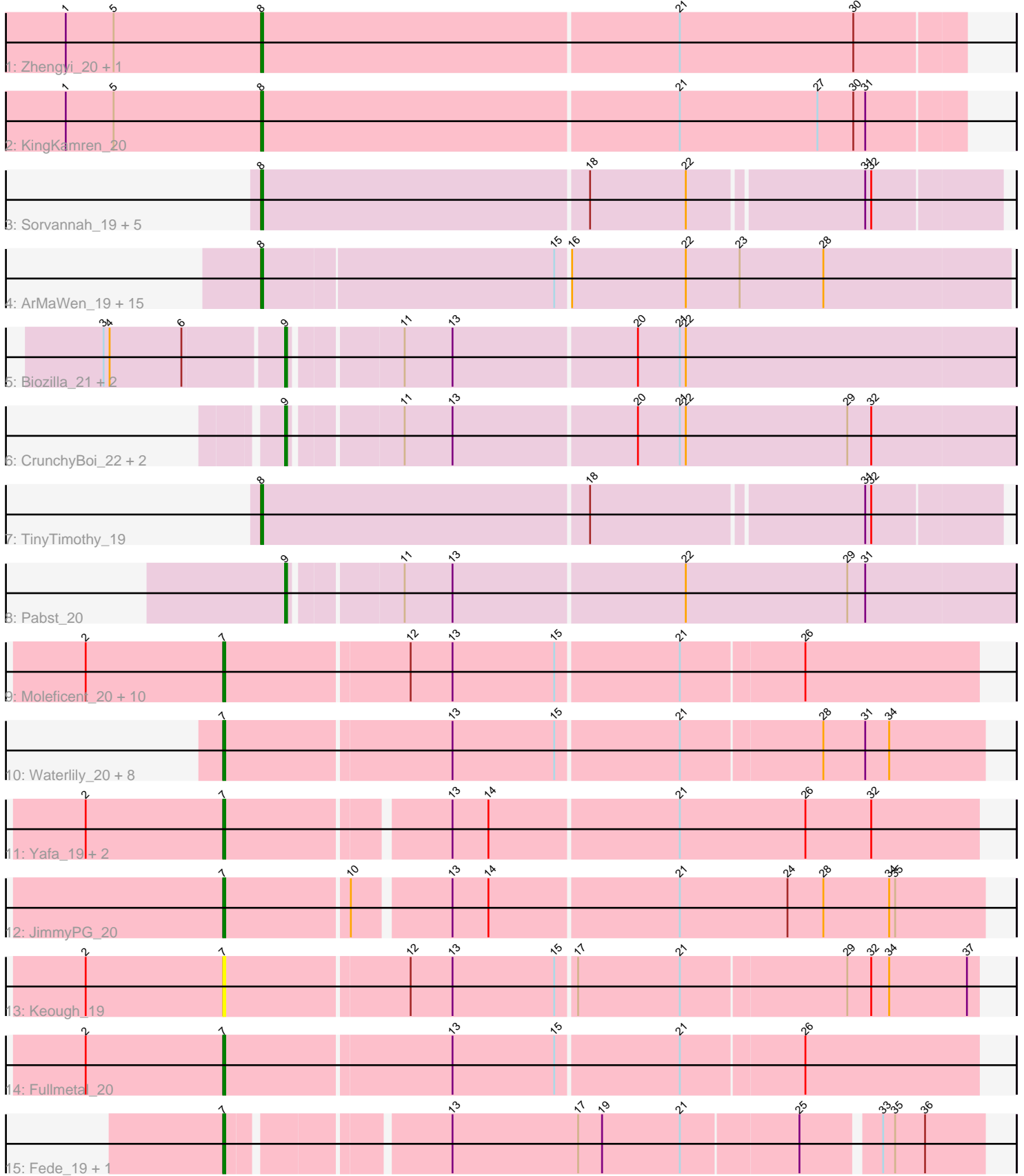


Pham 294747



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 294747 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294747 has 61 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Zhengyi\_20, EugeneKrabs\_20
- Track 2 : KingKamren\_20
- Track 3 : Sorvannah\_19, Salvatore2000\_19, YellowPanda\_20, Wesak\_19, MiamiPanther\_19, JessellCookie\_19
- Track 4 : ArMaWen\_19, BlueRugrat\_19, LilyLou\_20, Unphazed\_20, Alex44\_20, Birdfeeder\_19, Conditioner\_20, Corn21\_20, Phogo\_20, SwissCheezer\_19, Stormbreaker\_19, Dashyla\_19, LesNorah\_19, Xitlalli\_19, DumpQuist\_19, TownLake\_19
- Track 5 : Biozilla\_21, HitchHiker\_22, Oatly\_20
- Track 6 : CrunchyBoi\_22, PineapplePluto\_22, TicTac\_21
- Track 7 : TinyTimothy\_19
- Track 8 : Pabst\_20
- Track 9 : Moleficient\_20, PhriedRice\_20, Phracted\_20, Morrill\_19, Pharky\_20, Astartes\_20, RicoCaldo\_20, Mazun\_21, StagePhright\_20, Phedro\_20, ThirteenKH\_19
- Track 10 : Waterlily\_20, Barroma\_19, JordanFarm\_20, ShyRosie\_20, Truong\_20, SoilSleuth\_20, AloeVera\_20, Akoni\_20, Ashton\_20
- Track 11 : Yafa\_19, Atraxi\_19, TrippleS\_19
- Track 12 : JimmyPG\_20
- Track 13 : Keough\_19
- Track 14 : Fullmetal\_20
- Track 15 : Fede\_19, Kosier\_19

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

The start number called the most often in the published annotations is 7, it was called in 23 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akoni\_20, AloeVera\_20, Ashton\_20, Astartes\_20, Atraxi\_19, Barroma\_19, Fede\_19, Fullmetal\_20, JimmyPG\_20, JordanFarm\_20, Keough\_19, Kosier\_19, Mazun\_21, Moleficient\_20, Morrill\_19, Pharky\_20, Phedro\_20, Phracted\_20, PhriedRice\_20, RicoCaldo\_20, ShyRosie\_20, SoilSleuth\_20, StagePhright\_20, ThirteenKH\_19, TrippleS\_19, Truong\_20, Waterlily\_20, Yafa\_19,

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

- 

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

- Alex44\_20, ArMaWen\_19, Biozilla\_21, Birdfeeder\_19, BlueRugrat\_19, Conditioner\_20, Corn21\_20, CrunchyBoi\_22, Dashyla\_19, DumpQuist\_19, EugeneKrabs\_20, HitchHiker\_22, JessellCookie\_19, KingKamren\_20, LesNorah\_19, LilyLou\_20, MiamiPanther\_19, Oatly\_20, Pabst\_20, Phogo\_20, PineapplePluto\_22, Salvatore2000\_19, Sorvannah\_19, Stormbreaker\_19, SwissCheezer\_19, TicTac\_21, TinyTimothy\_19, TownLake\_19, Unphazed\_20, Wesak\_19, Xitlalli\_19, YellowPanda\_20, Zhengyi\_20,

### Summary by start number:

Start 7:

- Found in 28 of 61 ( 45.9% ) of genes in pham
- Manual Annotations of this start: 23 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akoni\_20 (EK2), AloeVera\_20 (EK2), Ashton\_20 (EK2), Astartes\_20 (EK2), Atraxi\_19 (EK2), Barroma\_19 (EK2), Fede\_19 (EK2), Fullmetal\_20 (EK2), JimmyPG\_20 (EK2), JordanFarm\_20 (EK2), Keough\_19 (EK2), Kosier\_19 (EK2), Mazun\_21 (EK2), Moleficent\_20 (EK2), Morrill\_19 (EK2), Pharky\_20 (EK2), Phedro\_20 (EK2), Phracted\_20 (EK2), PhriedRice\_20 (EK2), RicoCaldo\_20 (EK2), ShyRosie\_20 (EK2), SoilSteuth\_20 (EK2), StagePhright\_20 (EK2), ThirteenKH\_19 (EK2), TrippleS\_19 (EK2), Truong\_20 (EK2), Waterlily\_20 (EK2), Yafa\_19 (EK2),

Start 8:

- Found in 26 of 61 ( 42.6% ) of genes in pham
- Manual Annotations of this start: 23 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alex44\_20 (EK1), ArMaWen\_19 (EK1), Birdfeeder\_19 (EK1), BlueRugrat\_19 (EK1), Conditioner\_20 (EK1), Corn21\_20 (EK1), Dashyla\_19 (EK1), DumpQuist\_19 (EK1), EugeneKrabs\_20 (EK), JessellCookie\_19 (EK1), KingKamren\_20 (EK), LesNorah\_19 (EK1), LilyLou\_20 (EK1), MiamiPanther\_19 (EK1), Phogo\_20 (EK1), Salvatore2000\_19 (EK1), Sorvannah\_19 (EK1), Stormbreaker\_19 (EK1), SwissCheezer\_19 (EK1), TinyTimothy\_19 (EK1), TownLake\_19 (EK1), Unphazed\_20 (EK1), Wesak\_19 (EK1), Xitlalli\_19 (EK1), YellowPanda\_20 (EK1), Zhengyi\_20 (EK),

Start 9:

- Found in 7 of 61 ( 11.5% ) of genes in pham
- Manual Annotations of this start: 5 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Biozilla\_21 (EK1), CrunchyBoi\_22 (EK1), HitchHiker\_22 (EK1), Oatly\_20 (EK1), Pabst\_20 (EK1), PineapplePluto\_22 (EK1), TicTac\_21 (EK1),

### Summary by clusters:

There are 3 clusters represented in this pham: EK, EK2, EK1,

Info for manual annotations of cluster EK:

- Start number 8 was manually annotated 3 times for cluster EK.

Info for manual annotations of cluster EK1:

- Start number 8 was manually annotated 20 times for cluster EK1.
- Start number 9 was manually annotated 5 times for cluster EK1.

Info for manual annotations of cluster EK2:

- Start number 7 was manually annotated 23 times for cluster EK2.

**Gene Information:**

Gene: Akoni\_20 Start: 13361, Stop: 12990, Start Num: 7

Candidate Starts for Akoni\_20:

(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: Alex44\_20 Start: 13172, Stop: 12804, Start Num: 8

Candidate Starts for Alex44\_20:

(Start: 8 @13172 has 23 MA's), (15, 13028), (16, 13022), (22, 12965), (23, 12938), (28, 12896),

Gene: AloeVera\_20 Start: 13361, Stop: 12990, Start Num: 7

Candidate Starts for AloeVera\_20:

(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: ArMaWen\_19 Start: 12756, Stop: 12388, Start Num: 8

Candidate Starts for ArMaWen\_19:

(Start: 8 @12756 has 23 MA's), (15, 12612), (16, 12606), (22, 12549), (23, 12522), (28, 12480),

Gene: Ashton\_20 Start: 13365, Stop: 12994, Start Num: 7

Candidate Starts for Ashton\_20:

(Start: 7 @13365 has 23 MA's), (13, 13254), (15, 13203), (21, 13143), (28, 13074), (31, 13053), (34, 13041),

Gene: Astartes\_20 Start: 13448, Stop: 13080, Start Num: 7

Candidate Starts for Astartes\_20:

(2, 13517), (Start: 7 @13448 has 23 MA's), (12, 13358), (13, 13337), (15, 13286), (21, 13226), (26, 13166),

Gene: Atraxi\_19 Start: 13201, Stop: 12836, Start Num: 7

Candidate Starts for Atraxi\_19:

(2, 13270), (Start: 7 @13201 has 23 MA's), (13, 13096), (14, 13078), (21, 12985), (26, 12922), (32, 12889),

Gene: Barroma\_19 Start: 13361, Stop: 12990, Start Num: 7

Candidate Starts for Barroma\_19:

(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: Biozilla\_21 Start: 13577, Stop: 13224, Start Num: 9

Candidate Starts for Biozilla\_21:

(3, 13664), (4, 13661), (6, 13625), (Start: 9 @13577 has 5 MA's), (11, 13526), (13, 13502), (20, 13412), (21, 13391), (22, 13388),

Gene: Birdfeeder\_19 Start: 13119, Stop: 12751, Start Num: 8

Candidate Starts for Birdfeeder\_19:

(Start: 8 @13119 has 23 MA's), (15, 12975), (16, 12969), (22, 12912), (23, 12885), (28, 12843),

Gene: BlueRugrat\_19 Start: 13190, Stop: 12822, Start Num: 8

Candidate Starts for BlueRugrat\_19:

(Start: 8 @13190 has 23 MA's), (15, 13046), (16, 13040), (22, 12983), (23, 12956), (28, 12914),

Gene: Conditioner\_20 Start: 13470, Stop: 13102, Start Num: 8

Candidate Starts for Conditioner\_20:

(Start: 8 @13470 has 23 MA's), (15, 13326), (16, 13320), (22, 13263), (23, 13236), (28, 13194),

Gene: Corn21\_20 Start: 13495, Stop: 13127, Start Num: 8

Candidate Starts for Corn21\_20:

(Start: 8 @13495 has 23 MA's), (15, 13351), (16, 13345), (22, 13288), (23, 13261), (28, 13219),

Gene: CrunchyBoi\_22 Start: 13526, Stop: 13173, Start Num: 9

Candidate Starts for CrunchyBoi\_22:

(Start: 9 @13526 has 5 MA's), (11, 13475), (13, 13451), (20, 13361), (21, 13340), (22, 13337), (29, 13256), (32, 13244),

Gene: Dashyla\_19 Start: 12769, Stop: 12401, Start Num: 8

Candidate Starts for Dashyla\_19:

(Start: 8 @12769 has 23 MA's), (15, 12625), (16, 12619), (22, 12562), (23, 12535), (28, 12493),

Gene: DumpQuist\_19 Start: 12759, Stop: 12391, Start Num: 8

Candidate Starts for DumpQuist\_19:

(Start: 8 @12759 has 23 MA's), (15, 12615), (16, 12609), (22, 12552), (23, 12525), (28, 12483),

Gene: EugeneKrabs\_20 Start: 14007, Stop: 13660, Start Num: 8

Candidate Starts for EugeneKrabs\_20:

(1, 14103), (5, 14079), (Start: 8 @14007 has 23 MA's), (21, 13800), (30, 13713),

Gene: Fede\_19 Start: 12583, Stop: 12227, Start Num: 7

Candidate Starts for Fede\_19:

(Start: 7 @12583 has 23 MA's), (13, 12484), (17, 12421), (19, 12409), (21, 12370), (25, 12313), (33, 12277), (35, 12271), (36, 12256),

Gene: Fullmetal\_20 Start: 13446, Stop: 13078, Start Num: 7

Candidate Starts for Fullmetal\_20:

(2, 13515), (Start: 7 @13446 has 23 MA's), (13, 13335), (15, 13284), (21, 13224), (26, 13164),

Gene: HitchHiker\_22 Start: 13577, Stop: 13224, Start Num: 9

Candidate Starts for HitchHiker\_22:

(3, 13664), (4, 13661), (6, 13625), (Start: 9 @13577 has 5 MA's), (11, 13526), (13, 13502), (20, 13412), (21, 13391), (22, 13388),

Gene: JessellCookie\_19 Start: 12871, Stop: 12512, Start Num: 8

Candidate Starts for JessellCookie\_19:

(Start: 8 @12871 has 23 MA's), (18, 12709), (22, 12661), (31, 12577), (32, 12574),

Gene: JimmyPG\_20 Start: 13597, Stop: 13229, Start Num: 7

Candidate Starts for JimmyPG\_20:

(Start: 7 @13597 has 23 MA's), (10, 13537), (13, 13492), (14, 13474), (21, 13381), (24, 13327), (28, 13309), (34, 13276), (35, 13273),

Gene: JordanFarm\_20 Start: 13361, Stop: 12990, Start Num: 7

Candidate Starts for JordanFarm\_20:

(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: Keough\_19 Start: 13174, Stop: 12806, Start Num: 7

Candidate Starts for Keough\_19:

(2, 13243), (Start: 7 @13174 has 23 MA's), (12, 13084), (13, 13063), (15, 13012), (17, 13003), (21, 12952), (29, 12871), (32, 12859), (34, 12850), (37, 12811),

Gene: KingKamren\_20 Start: 13908, Stop: 13561, Start Num: 8

Candidate Starts for KingKamren\_20:

(1, 14004), (5, 13980), (Start: 8 @13908 has 23 MA's), (21, 13701), (27, 13632), (30, 13614), (31, 13608),

Gene: Kosier\_19 Start: 12583, Stop: 12227, Start Num: 7

Candidate Starts for Kosier\_19:

(Start: 7 @12583 has 23 MA's), (13, 12484), (17, 12421), (19, 12409), (21, 12370), (25, 12313), (33, 12277), (35, 12271), (36, 12256),

Gene: LesNorah\_19 Start: 13283, Stop: 12915, Start Num: 8

Candidate Starts for LesNorah\_19:

(Start: 8 @13283 has 23 MA's), (15, 13139), (16, 13133), (22, 13076), (23, 13049), (28, 13007),

Gene: LilyLou\_20 Start: 13133, Stop: 12765, Start Num: 8

Candidate Starts for LilyLou\_20:

(Start: 8 @13133 has 23 MA's), (15, 12989), (16, 12983), (22, 12926), (23, 12899), (28, 12857),

Gene: Mazun\_21 Start: 13633, Stop: 13265, Start Num: 7

Candidate Starts for Mazun\_21:

(2, 13702), (Start: 7 @13633 has 23 MA's), (12, 13543), (13, 13522), (15, 13471), (21, 13411), (26, 13351),

Gene: MiamiPanther\_19 Start: 12871, Stop: 12512, Start Num: 8

Candidate Starts for MiamiPanther\_19:

(Start: 8 @12871 has 23 MA's), (18, 12709), (22, 12661), (31, 12577), (32, 12574),

Gene: Moleficent\_20 Start: 13443, Stop: 13075, Start Num: 7

Candidate Starts for Moleficent\_20:

(2, 13512), (Start: 7 @13443 has 23 MA's), (12, 13353), (13, 13332), (15, 13281), (21, 13221), (26, 13161),

Gene: Morrill\_19 Start: 13184, Stop: 12816, Start Num: 7

Candidate Starts for Morrill\_19:

(2, 13253), (Start: 7 @13184 has 23 MA's), (12, 13094), (13, 13073), (15, 13022), (21, 12962), (26, 12902),

Gene: Oatly\_20 Start: 12991, Stop: 12638, Start Num: 9

Candidate Starts for Oatly\_20:

(3, 13078), (4, 13075), (6, 13039), (Start: 9 @12991 has 5 MA's), (11, 12940), (13, 12916), (20, 12826), (21, 12805), (22, 12802),

Gene: Pabst\_20 Start: 13235, Stop: 12882, Start Num: 9

Candidate Starts for Pabst\_20:

(Start: 9 @13235 has 5 MA's), (11, 13184), (13, 13160), (22, 13046), (29, 12965), (31, 12956),

Gene: Pharky\_20 Start: 13406, Stop: 13038, Start Num: 7

Candidate Starts for Pharky\_20:

(2, 13475), (Start: 7 @13406 has 23 MA's), (12, 13316), (13, 13295), (15, 13244), (21, 13184), (26, 13124),

Gene: Phedro\_20 Start: 13406, Stop: 13038, Start Num: 7

Candidate Starts for Phedro\_20:

(2, 13475), (Start: 7 @13406 has 23 MA's), (12, 13316), (13, 13295), (15, 13244), (21, 13184), (26, 13124),

Gene: Phogo\_20 Start: 12965, Stop: 12597, Start Num: 8

Candidate Starts for Phogo\_20:

(Start: 8 @12965 has 23 MA's), (15, 12821), (16, 12815), (22, 12758), (23, 12731), (28, 12689),

Gene: Phractured\_20 Start: 13406, Stop: 13038, Start Num: 7

Candidate Starts for Phractured\_20:

(2, 13475), (Start: 7 @13406 has 23 MA's), (12, 13316), (13, 13295), (15, 13244), (21, 13184), (26, 13124),

Gene: PhriedRice\_20 Start: 13417, Stop: 13049, Start Num: 7

Candidate Starts for PhriedRice\_20:

(2, 13486), (Start: 7 @13417 has 23 MA's), (12, 13327), (13, 13306), (15, 13255), (21, 13195), (26, 13135),

Gene: PineapplePluto\_22 Start: 13535, Stop: 13182, Start Num: 9

Candidate Starts for PineapplePluto\_22:

(Start: 9 @13535 has 5 MA's), (11, 13484), (13, 13460), (20, 13370), (21, 13349), (22, 13346), (29, 13265), (32, 13253),

Gene: RicoCaldo\_20 Start: 13438, Stop: 13070, Start Num: 7

Candidate Starts for RicoCaldo\_20:

(2, 13507), (Start: 7 @13438 has 23 MA's), (12, 13348), (13, 13327), (15, 13276), (21, 13216), (26, 13156),

Gene: Salvatore2000\_19 Start: 12871, Stop: 12512, Start Num: 8

Candidate Starts for Salvatore2000\_19:

(Start: 8 @12871 has 23 MA's), (18, 12709), (22, 12661), (31, 12577), (32, 12574),

Gene: ShyRosie\_20 Start: 13361, Stop: 12990, Start Num: 7

Candidate Starts for ShyRosie\_20:

(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: SoilSleuth\_20 Start: 13403, Stop: 13032, Start Num: 7  
Candidate Starts for SoilSleuth\_20:  
(Start: 7 @13403 has 23 MA's), (13, 13292), (15, 13241), (21, 13181), (28, 13112), (31, 13091), (34, 13079),

Gene: Sorvannah\_19 Start: 12871, Stop: 12512, Start Num: 8  
Candidate Starts for Sorvannah\_19:  
(Start: 8 @12871 has 23 MA's), (18, 12709), (22, 12661), (31, 12577), (32, 12574),

Gene: StagePhright\_20 Start: 13406, Stop: 13038, Start Num: 7  
Candidate Starts for StagePhright\_20:  
(2, 13475), (Start: 7 @13406 has 23 MA's), (12, 13316), (13, 13295), (15, 13244), (21, 13184), (26, 13124),

Gene: Stormbreaker\_19 Start: 13095, Stop: 12727, Start Num: 8  
Candidate Starts for Stormbreaker\_19:  
(Start: 8 @13095 has 23 MA's), (15, 12951), (16, 12945), (22, 12888), (23, 12861), (28, 12819),

Gene: SwissCheezer\_19 Start: 12732, Stop: 12364, Start Num: 8  
Candidate Starts for SwissCheezer\_19:  
(Start: 8 @12732 has 23 MA's), (15, 12588), (16, 12582), (22, 12525), (23, 12498), (28, 12456),

Gene: ThirteenKH\_19 Start: 13183, Stop: 12815, Start Num: 7  
Candidate Starts for ThirteenKH\_19:  
(2, 13252), (Start: 7 @13183 has 23 MA's), (12, 13093), (13, 13072), (15, 13021), (21, 12961), (26, 12901),

Gene: TicTac\_21 Start: 13589, Stop: 13236, Start Num: 9  
Candidate Starts for TicTac\_21:  
(Start: 9 @13589 has 5 MA's), (11, 13538), (13, 13514), (20, 13424), (21, 13403), (22, 13400), (29, 13319), (32, 13307),

Gene: TinyTimothy\_19 Start: 12871, Stop: 12512, Start Num: 8  
Candidate Starts for TinyTimothy\_19:  
(Start: 8 @12871 has 23 MA's), (18, 12709), (31, 12577), (32, 12574),

Gene: TownLake\_19 Start: 13265, Stop: 12897, Start Num: 8  
Candidate Starts for TownLake\_19:  
(Start: 8 @13265 has 23 MA's), (15, 13121), (16, 13115), (22, 13058), (23, 13031), (28, 12989),

Gene: TrippleS\_19 Start: 13187, Stop: 12822, Start Num: 7  
Candidate Starts for TrippleS\_19:  
(2, 13256), (Start: 7 @13187 has 23 MA's), (13, 13082), (14, 13064), (21, 12971), (26, 12908), (32, 12875),

Gene: Truong\_20 Start: 13361, Stop: 12990, Start Num: 7  
Candidate Starts for Truong\_20:  
(Start: 7 @13361 has 23 MA's), (13, 13250), (15, 13199), (21, 13139), (28, 13070), (31, 13049), (34, 13037),

Gene: Unphazed\_20 Start: 12995, Stop: 12627, Start Num: 8  
Candidate Starts for Unphazed\_20:  
(Start: 8 @12995 has 23 MA's), (15, 12851), (16, 12845), (22, 12788), (23, 12761), (28, 12719),

Gene: Waterlily\_20 Start: 13403, Stop: 13032, Start Num: 7

Candidate Starts for Waterlily\_20:

(Start: 7 @13403 has 23 MA's), (13, 13292), (15, 13241), (21, 13181), (28, 13112), (31, 13091), (34, 13079),

Gene: Wesak\_19 Start: 12713, Stop: 12354, Start Num: 8

Candidate Starts for Wesak\_19:

(Start: 8 @12713 has 23 MA's), (18, 12551), (22, 12503), (31, 12419), (32, 12416),

Gene: Xitlalli\_19 Start: 13338, Stop: 12970, Start Num: 8

Candidate Starts for Xitlalli\_19:

(Start: 8 @13338 has 23 MA's), (15, 13194), (16, 13188), (22, 13131), (23, 13104), (28, 13062),

Gene: Yafa\_19 Start: 13203, Stop: 12838, Start Num: 7

Candidate Starts for Yafa\_19:

(2, 13272), (Start: 7 @13203 has 23 MA's), (13, 13098), (14, 13080), (21, 12987), (26, 12924), (32, 12891),

Gene: YellowPanda\_20 Start: 12594, Stop: 12235, Start Num: 8

Candidate Starts for YellowPanda\_20:

(Start: 8 @12594 has 23 MA's), (18, 12432), (22, 12384), (31, 12300), (32, 12297),

Gene: Zhengyi\_20 Start: 14026, Stop: 13679, Start Num: 8

Candidate Starts for Zhengyi\_20:

(1, 14122), (5, 14098), (Start: 8 @14026 has 23 MA's), (21, 13819), (30, 13732),