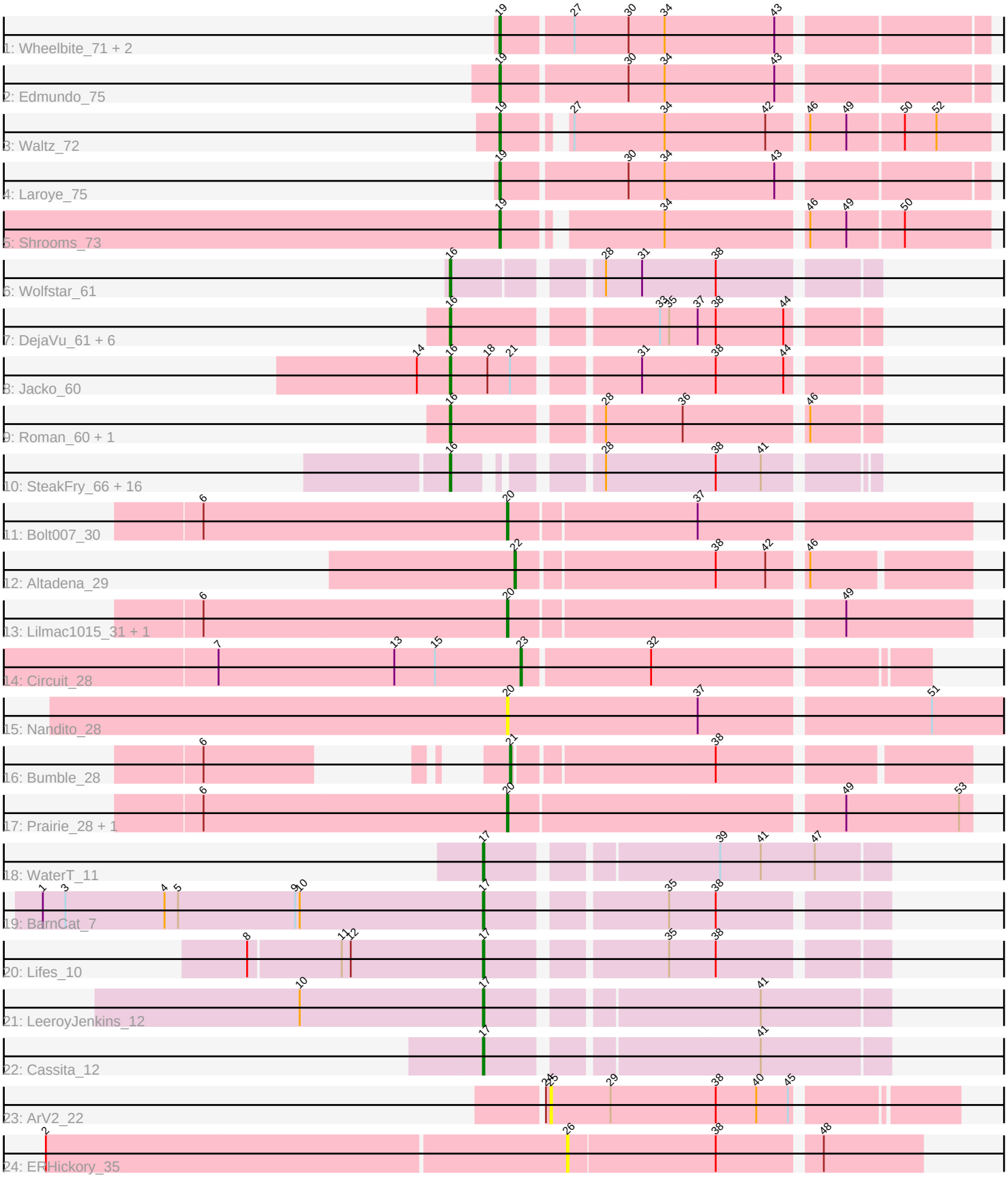
Pham 308728


1: Wheelbite_71 + 2
2: Edmundo_75
3: Waltz_72
4: Laroye_75
5: Shrooms_73
6: Wolfstar_61
7: DejaVu_61 + 6
8: Jacko_60
9: Roman_60 + 1
10: SteakFry_66 + 16
11: Bolt007_30
12: Altadena_29
13: Lilmac1015_31 + 1
14: Circuit_28
15: Nandito_28
16: Bumble_28
17: Prairie_28 + 1
18: WaterT_11
19: BarnCat_7
20: Lifes_10
21: LeeroyJenkins_12
22: Cassita_12
23: ArV2_22
24: ERHickory_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 308728 Report

This analysis was run 06/27/26 on database version 652.

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 308728 has 51 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Wheelbite_71, Salgado_75, LiSara_72
• Track 2 : Edmundo_75
• Track 3 : Waltz_72
• Track 4 : Laroye_75
• Track 5 : Shrooms_73
• Track 6 : Wolfstar_61
• Track 7 : DejaVu_61, Pavlo_59, Solimine_60, PhillyPhilly_59, Lupine_58, Uterion_62, Saradis_60
• Track 8 : Jacko_60
• Track 9 : Roman_60, Hubbs_60
• Track 10 : SteakFry_66, Necrophoxinus_66, Erenyeager_64, Welcome_65, DustyDino_67, Casablancas_65, HollowPurple_65, Issa7_63, Deschain_65, Musetta_64, ASegato_63, Lyell_64, RunningBrook_65, Yuma_63, StevieWelch_64, Shroomer_68, Fork_60
• Track 11 : Bolt007_30
• Track 12 : Altadena_29
• Track 13 : Lilmac1015_31, CalWood4100_31
• Track 14 : Circuit_28
• Track 15 : Nandito_28
• Track 16 : Bumble_28
• Track 17 : Prairie_28, Klevey_30
• Track 18 : WaterT_11
• Track 19 : BarnCat_7
• Track 20 : Lifes_10
• Track 21 : LeeroyJenkins_12
• Track 22 : Cassita_12
• Track 23 : ArV2_22
• Track 24 : ERHickory_35

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

The start number called the most often in the published annotations is 16, it was called in 23 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASegato_63, Casablancas_65, DejaVu_61, Deschain_65, DustyDino_67, Erenyeager_64, Fork_60, HollowPurple_65, Hubbs_60, Issa7_63, Jacko_60, Lupine_58, Lyell_64, Musetta_64, Necrophoxinus_66, Pavlo_59, PhillyPhilly_59, Roman_60, RunningBrook_65, Saradis_60, Shroomer_68, Solimine_60, SteakFry_66, StevieWelch_64, Uterion_62, Welcome_65, Wolfstar_61, Yuma_63,

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

Genes that do not have the "Most Annotated" start:
• Altadena_29, ArV2_22, BarnCat_7, Bolt007_30, Bumble_28, CalWood4100_31, Cassita_12, Circuit_28, ERHickory_35, Edmundo_75, Klevey_30, Laroye_75, LeeroyJenkins_12, LiSara_72, Lifes_10, Lilmac1015_31, Nandito_28, Prairie_28, Salgado_75, Shrooms_73, Waltz_72, WaterT_11, Wheelbite_71,

Summary by start number:

Start 16:
• Found in 28 of 51 (54.9%) of genes in pham
• Manual Annotations of this start: 23 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ASegato_63 (ED2), Casablancas_65 (ED2), DejaVu_61 (ED1), Deschain_65 (ED2), DustyDino_67 (ED2), Erenyeager_64 (ED2), Fork_60 (ED2), HollowPurple_65 (ED2), Hubbs_60 (ED1), Issa7_63 (ED2), Jacko_60 (ED1), Lupine_58 (ED1), Lyell_64 (ED2), Musetta_64 (ED2), Necrophoxinus_66 (ED2), Pavlo_59 (ED1), PhillyPhilly_59 (ED1), Roman_60 (ED1), RunningBrook_65 (ED2), Saradis_60 (ED1), Shroomer_68 (ED2), Solimine_60 (ED1), SteakFry_66 (ED2), StevieWelch_64 (ED2), Uterion_62 (ED1), Welcome_65 (ED2), Wolfstar_61 (ED), Yuma_63 (ED2),

Start 17:
• Found in 5 of 51 (9.8%) of genes in pham
• Manual Annotations of this start: 5 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BarnCat_7 (GB), Cassita_12 (GB), LeeroyJenkins_12 (GB), Lifes_10 (GB), WaterT_11 (GB),

Start 19:
• Found in 7 of 51 (13.7%) of genes in pham
• Manual Annotations of this start: 7 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Edmundo_75 (AL), Laroye_75 (AL), LiSara_72 (AL), Salgado_75 (AL), Shrooms_73 (AL), Waltz_72 (AL), Wheelbite_71 (AL),

Start 20:
• Found in 6 of 51 (11.8%) of genes in pham
• Manual Annotations of this start: 4 of 42

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bolt007_30 (FH), CalWood4100_31 (FH), Klevey_30 (FH), Lilmac1015_31 (FH), Nandito_28 (FH), Prairie_28 (FH),

Start 21:
• Found in 2 of 51 (3.9%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Bumble_28 (FH),

Start 22:
• Found in 1 of 51 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Altadena_29 (FH),

Start 23:
• Found in 1 of 51 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Circuit_28 (FH),

Start 25:
• Found in 1 of 51 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArV2_22 (singleton),

Start 26:
• Found in 1 of 51 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ERHickory_35 (singleton),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, ED, AL, ED2, ED1, GB, FH,

Info for manual annotations of cluster AL:
•Start number 19 was manually annotated 7 times for cluster AL.

Info for manual annotations of cluster ED:
•Start number 16 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:
•Start number 16 was manually annotated 7 times for cluster ED1.

Info for manual annotations of cluster ED2:
•Start number 16 was manually annotated 15 times for cluster ED2.

Info for manual annotations of cluster FH:
•Start number 20 was manually annotated 4 times for cluster FH.
•Start number 21 was manually annotated 1 time for cluster FH.

•Start number 22 was manually annotated 1 time for cluster FH.
•Start number 23 was manually annotated 1 time for cluster FH.

Info for manual annotations of cluster GB:
•Start number 17 was manually annotated 5 times for cluster GB.

Gene Information:

Gene: ASegato_63 Start: 35933, Stop: 36172, Start Num: 16
Candidate Starts for ASegato_63:
(Start: 16 @35933 has 23 MA's), (28, 36005), (38, 36077), (41, 36107),

Gene: Altadena_29 Start: 23573, Stop: 23854, Start Num: 22
Candidate Starts for Altadena_29:
(Start: 22 @23573 has 1 MA's), (38, 23699), (42, 23732), (46, 23753),

Gene: ArV2_22 Start: 17796, Stop: 18050, Start Num: 25
Candidate Starts for ArV2_22:
(24, 17793), (25, 17796), (29, 17835), (38, 17904), (40, 17931), (45, 17952),

Gene: BarnCat_7 Start: 2513, Stop: 2755, Start Num: 17
Candidate Starts for BarnCat_7:
(1, 2222), (3, 2237), (4, 2303), (5, 2312), (9, 2390), (10, 2393), (Start: 17 @2513 has 5 MA's), (35, 2621), (38, 2651),

Gene: Bolt007_30 Start: 22624, Stop: 22917, Start Num: 20
Candidate Starts for Bolt007_30:
(6, 22423), (Start: 20 @22624 has 4 MA's), (37, 22744),

Gene: Bumble_28 Start: 23367, Stop: 23648, Start Num: 21
Candidate Starts for Bumble_28:
(6, 23265), (Start: 21 @23367 has 1 MA's), (38, 23493),

Gene: CalWood4100_31 Start: 22617, Stop: 22910, Start Num: 20
Candidate Starts for CalWood4100_31:
(6, 22416), (Start: 20 @22617 has 4 MA's), (49, 22827),

Gene: Casablancas_65 Start: 35673, Stop: 35912, Start Num: 16
Candidate Starts for Casablancas_65:
(Start: 16 @35673 has 23 MA's), (28, 35745), (38, 35817), (41, 35847),

Gene: Cassita_12 Start: 3271, Stop: 3519, Start Num: 17
Candidate Starts for Cassita_12:
(Start: 17 @3271 has 5 MA's), (41, 3436),

Gene: Circuit_28 Start: 24260, Stop: 24511, Start Num: 23
Candidate Starts for Circuit_28:
(7, 24059), (13, 24176), (15, 24203), (Start: 23 @24260 has 1 MA's), (32, 24341),

Gene: DejaVu_61 Start: 35839, Stop: 36096, Start Num: 16
Candidate Starts for DejaVu_61:

(Start: 16 @35839 has 23 MA's), (33, 35962), (35, 35968), (37, 35986), (38, 35998), (44, 36043),

Gene: Deschain_65 Start: 36337, Stop: 36576, Start Num: 16
Candidate Starts for Deschain_65:
(Start: 16 @36337 has 23 MA's), (28, 36409), (38, 36481), (41, 36511),

Gene: DustyDino_67 Start: 36531, Stop: 36770, Start Num: 16
Candidate Starts for DustyDino_67:
(Start: 16 @36531 has 23 MA's), (28, 36603), (38, 36675), (41, 36705),

Gene: ERHickory_35 Start: 16381, Stop: 16605, Start Num: 26
Candidate Starts for ERHickory_35:
(2, 16039), (26, 16381), (38, 16477), (48, 16540),

Gene: Edmundo_75 Start: 46375, Stop: 46680, Start Num: 19
Candidate Starts for Edmundo_75:
(Start: 19 @46375 has 7 MA's), (30, 46456), (34, 46480), (43, 46552),

Gene: Erenyeager_64 Start: 35923, Stop: 36162, Start Num: 16
Candidate Starts for Erenyeager_64:
(Start: 16 @35923 has 23 MA's), (28, 35995), (38, 36067), (41, 36097),

Gene: Fork_60 Start: 35583, Stop: 35822, Start Num: 16
Candidate Starts for Fork_60:
(Start: 16 @35583 has 23 MA's), (28, 35655), (38, 35727), (41, 35757),

Gene: HollowPurple_65 Start: 36139, Stop: 36378, Start Num: 16
Candidate Starts for HollowPurple_65:
(Start: 16 @36139 has 23 MA's), (28, 36211), (38, 36283), (41, 36313),

Gene: Hubbs_60 Start: 36051, Stop: 36308, Start Num: 16
Candidate Starts for Hubbs_60:
(Start: 16 @36051 has 23 MA's), (28, 36138), (36, 36189), (46, 36264),

Gene: Issa7_63 Start: 35587, Stop: 35826, Start Num: 16
Candidate Starts for Issa7_63:
(Start: 16 @35587 has 23 MA's), (28, 35659), (38, 35731), (41, 35761),

Gene: Jacko_60 Start: 34827, Stop: 35084, Start Num: 16
Candidate Starts for Jacko_60:
(14, 34806), (Start: 16 @34827 has 23 MA's), (18, 34851), (Start: 21 @34866 has 1 MA's), (31, 34938), (38, 34986), (44, 35031),

Gene: Klevey_30 Start: 22624, Stop: 22920, Start Num: 20
Candidate Starts for Klevey_30:
(6, 22423), (Start: 20 @22624 has 4 MA's), (49, 22837), (53, 22912),

Gene: Laroye_75 Start: 45753, Stop: 46058, Start Num: 19
Candidate Starts for Laroye_75:
(Start: 19 @45753 has 7 MA's), (30, 45834), (34, 45858), (43, 45930),

Gene: LeeroyJenkins_12 Start: 3061, Stop: 3309, Start Num: 17
Candidate Starts for LeeroyJenkins_12:

(10, 2941), (Start: 17 @3061 has 5 MA's), (41, 3226),

Gene: LiSara_72 Start: 45918, Stop: 46223, Start Num: 19
Candidate Starts for LiSara_72:
(Start: 19 @45918 has 7 MA's), (27, 45963), (30, 45999), (34, 46023), (43, 46095),

Gene: Lifes_10 Start: 2650, Stop: 2892, Start Num: 17
Candidate Starts for Lifes_10:
(8, 2497), (11, 2557), (12, 2563), (Start: 17 @2650 has 5 MA's), (35, 2758), (38, 2788),

Gene: Lilmac1015_31 Start: 22617, Stop: 22910, Start Num: 20
Candidate Starts for Lilmac1015_31:
(6, 22416), (Start: 20 @22617 has 4 MA's), (49, 22827),

Gene: Lupine_58 Start: 35253, Stop: 35510, Start Num: 16
Candidate Starts for Lupine_58:
(Start: 16 @35253 has 23 MA's), (33, 35376), (35, 35382), (37, 35400), (38, 35412), (44, 35457),

Gene: Lyell_64 Start: 35842, Stop: 36081, Start Num: 16
Candidate Starts for Lyell_64:
(Start: 16 @35842 has 23 MA's), (28, 35914), (38, 35986), (41, 36016),

Gene: Musetta_64 Start: 36303, Stop: 36542, Start Num: 16
Candidate Starts for Musetta_64:
(Start: 16 @36303 has 23 MA's), (28, 36375), (38, 36447), (41, 36477),

Gene: Nandito_28 Start: 21708, Stop: 22070, Start Num: 20
Candidate Starts for Nandito_28:
(Start: 20 @21708 has 4 MA's), (37, 21834), (51, 21981),

Gene: Necrophoxinus_66 Start: 36537, Stop: 36776, Start Num: 16
Candidate Starts for Necrophoxinus_66:
(Start: 16 @36537 has 23 MA's), (28, 36609), (38, 36681), (41, 36711),

Gene: Pavlo_59 Start: 35898, Stop: 36155, Start Num: 16
Candidate Starts for Pavlo_59:
(Start: 16 @35898 has 23 MA's), (33, 36021), (35, 36027), (37, 36045), (38, 36057), (44, 36102),

Gene: PhillyPhilly_59 Start: 35432, Stop: 35689, Start Num: 16
Candidate Starts for PhillyPhilly_59:
(Start: 16 @35432 has 23 MA's), (33, 35555), (35, 35561), (37, 35579), (38, 35591), (44, 35636),

Gene: Prairie_28 Start: 22645, Stop: 22941, Start Num: 20
Candidate Starts for Prairie_28:
(6, 22444), (Start: 20 @22645 has 4 MA's), (49, 22858), (53, 22933),

Gene: Roman_60 Start: 35899, Stop: 36156, Start Num: 16
Candidate Starts for Roman_60:
(Start: 16 @35899 has 23 MA's), (28, 35986), (36, 36037), (46, 36112),

Gene: RunningBrook_65 Start: 36531, Stop: 36770, Start Num: 16
Candidate Starts for RunningBrook_65:
(Start: 16 @36531 has 23 MA's), (28, 36603), (38, 36675), (41, 36705),

Gene: Salgado_75 Start: 45569, Stop: 45874, Start Num: 19
Candidate Starts for Salgado_75:
(Start: 19 @45569 has 7 MA's), (27, 45614), (30, 45650), (34, 45674), (43, 45746),

Gene: Saradis_60 Start: 35491, Stop: 35748, Start Num: 16
Candidate Starts for Saradis_60:
(Start: 16 @35491 has 23 MA's), (33, 35614), (35, 35620), (37, 35638), (38, 35650), (44, 35695),

Gene: Shroomer_68 Start: 36073, Stop: 36312, Start Num: 16
Candidate Starts for Shroomer_68:
(Start: 16 @36073 has 23 MA's), (28, 36145), (38, 36217), (41, 36247),

Gene: Shrooms_73 Start: 44046, Stop: 44342, Start Num: 19
Candidate Starts for Shrooms_73:
(Start: 19 @44046 has 7 MA's), (34, 44139), (46, 44226), (49, 44250), (50, 44286),

Gene: Solimine_60 Start: 35905, Stop: 36162, Start Num: 16
Candidate Starts for Solimine_60:
(Start: 16 @35905 has 23 MA's), (33, 36028), (35, 36034), (37, 36052), (38, 36064), (44, 36109),

Gene: SteakFry_66 Start: 36139, Stop: 36378, Start Num: 16
Candidate Starts for SteakFry_66:
(Start: 16 @36139 has 23 MA's), (28, 36211), (38, 36283), (41, 36313),

Gene: StevieWelch_64 Start: 35923, Stop: 36162, Start Num: 16
Candidate Starts for StevieWelch_64:
(Start: 16 @35923 has 23 MA's), (28, 35995), (38, 36067), (41, 36097),

Gene: Uterion_62 Start: 36000, Stop: 36257, Start Num: 16
Candidate Starts for Uterion_62:
(Start: 16 @36000 has 23 MA's), (33, 36123), (35, 36129), (37, 36147), (38, 36159), (44, 36204),

Gene: Waltz_72 Start: 44062, Stop: 44358, Start Num: 19
Candidate Starts for Waltz_72:
(Start: 19 @44062 has 7 MA's), (27, 44095), (34, 44155), (42, 44221), (46, 44242), (49, 44266), (50, 44302), (52, 44323),

Gene: WaterT_11 Start: 2884, Stop: 3132, Start Num: 17
Candidate Starts for WaterT_11:
(Start: 17 @2884 has 5 MA's), (39, 3022), (41, 3049), (47, 3085),

Gene: Welcome_65 Start: 36288, Stop: 36527, Start Num: 16
Candidate Starts for Welcome_65:
(Start: 16 @36288 has 23 MA's), (28, 36360), (38, 36432), (41, 36462),

Gene: Wheelbite_71 Start: 45721, Stop: 46026, Start Num: 19
Candidate Starts for Wheelbite_71:
(Start: 19 @45721 has 7 MA's), (27, 45766), (30, 45802), (34, 45826), (43, 45898),

Gene: Wolfstar_61 Start: 36943, Stop: 37197, Start Num: 16
Candidate Starts for Wolfstar_61:
(Start: 16 @36943 has 23 MA's), (28, 37027), (31, 37051), (38, 37099),

Gene: Yuma_63 Start: 35857, Stop: 36096, Start Num: 16
Candidate Starts for Yuma_63:
(Start: 16 @35857 has 23 MA's), (28, 35929), (38, 36001), (41, 36031),