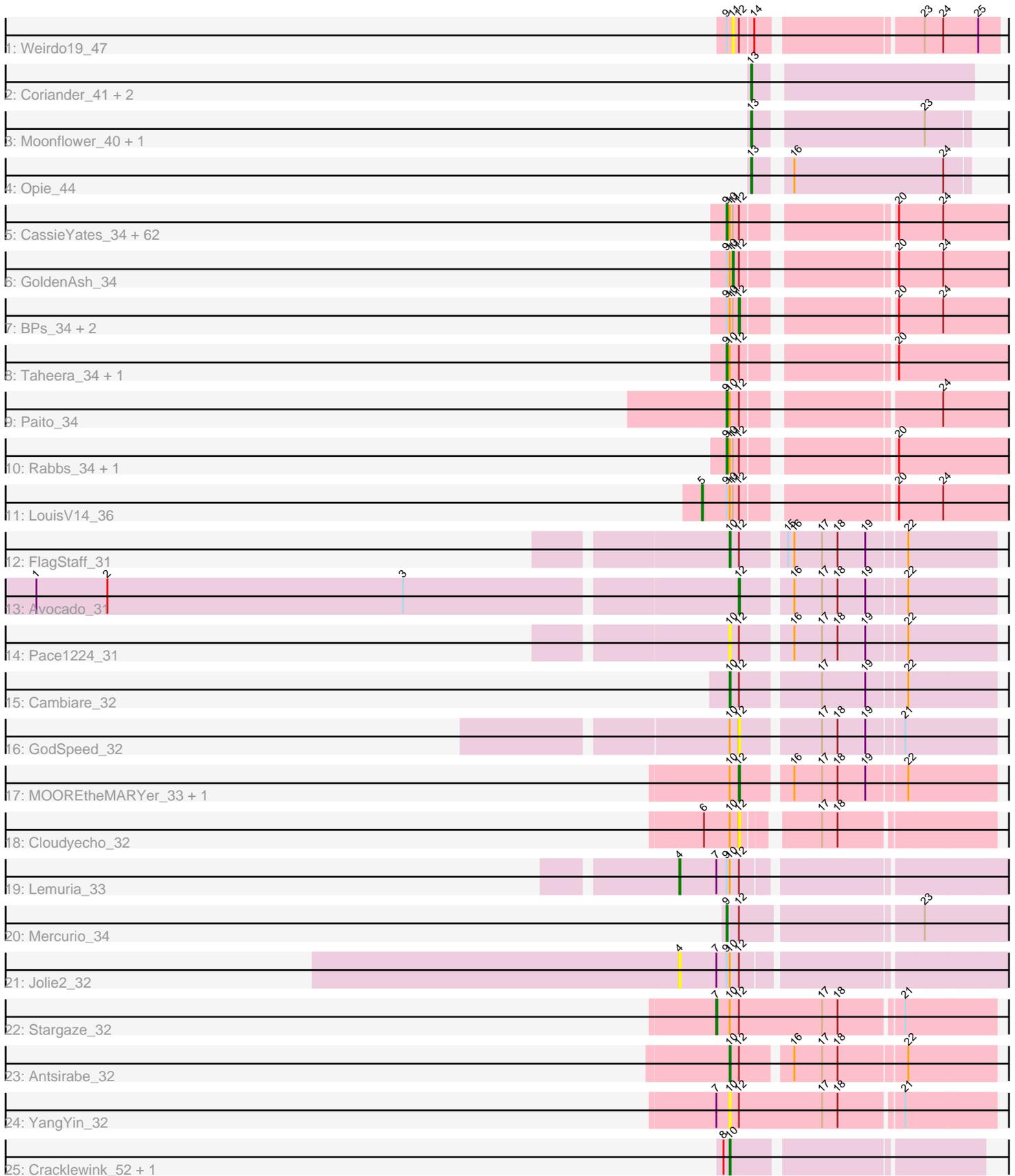


Pham 291026



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 291026 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291026 has 96 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Weirdo19_47
- Track 2 : Coriander_41, Doggs_38, TaronosaurusRx_43
- Track 3 : Moonflower_40, Dmitri_41
- Track 4 : Opie_44
- Track 5 : CassieYates_34, Gideon_34, TinaBug_34, Angel_34, Barkley26_34, BruceB_34, Coleslaw_34, Richarlison_34, Sweets_34, Halo_34, DNAIII_0033, Annihilator_34, AzulaCat_34, Maliketh_34, Kareem_34, Jeilious_34, Phloodle_34, Frosty24_34, Cherrybomb426_34, Neoh_34, DingDing_34, Cedasite_34, Plagueis_34, Grizzly_34, Aroostook_34, Jane_34, Hope_34, Zombie_34, Peeb_34, MZKinsey_34, Crespo_34, Darionha_34, Mowgli_34, Chance64_34, ECartman_34, DMoney_34, Marmie_34, OctaviousRex_34, Kasen3_34, Ruriko_34, Wendigo_34, Renaissance_34, Camri_34, JorRay_34, Phreak_34, BQuat_34, Liefie_34, Remy19_34, Periodt_34, CLED96_34, Avrafan_34, AizenPogi_34, Jonghyun_34, ZoMa_34, Gomashi_34, Schiebel_34, Sizemore_34, PinkYoshi_34, Hotshotbaby7_34, Olga_34, Jolene_34, Phish_34, Rattrick_34
- Track 6 : GoldenAsh_34
- Track 7 : BPs_34, ShaboiShabazz_34, TomBrady_34
- Track 8 : Taheera_34, Terror_34
- Track 9 : Paito_34
- Track 10 : Rabbs_34, Sneeze_34
- Track 11 : LouisV14_36
- Track 12 : FlagStaff_31
- Track 13 : Avocado_31
- Track 14 : Pace1224_31
- Track 15 : Cambiare_32
- Track 16 : GodSpeed_32
- Track 17 : MOOREtheMARYer_33, Pinnie_33
- Track 18 : Cloudyecho_32
- Track 19 : Lemuria_33
- Track 20 : Mercurio_34
- Track 21 : Jolie2_32
- Track 22 : Stargaze_32
- Track 23 : Antsirabe_32
- Track 24 : YangYin_32
- Track 25 : Cracklewink_52, Bipper_52

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

The start number called the most often in the published annotations is 9, it was called in 58 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AizenPogi_34, Angel_34, Annihilator_34, Aroostook_34, Avrafan_34, AzulaCat_34, BQuat_34, Barkley26_34, BruceB_34, CLED96_34, Camri_34, CassieYates_34, Cedasite_34, Chance64_34, Cherrybomb426_34, Coleslaw_34, Crespo_34, DMoney_34, DNAIII_0033, Darionha_34, DingDing_34, ECartman_34, Frosty24_34, Gideon_34, Gomashi_34, Grizzly_34, Halo_34, Hope_34, Hotshotbaby7_34, Jane_34, Jeilious_34, Jolene_34, Jonghyun_34, JorRay_34, Kareem_34, Kasen3_34, Liefie_34, MZKinsey_34, Maliketh_34, Marmie_34, Mercurio_34, Mowgli_34, Neoh_34, OctaviousRex_34, Olga_34, Paito_34, Peeb_34, Periodt_34, Phish_34, Phloodle_34, Phreak_34, PinkYoshi_34, Plagueis_34, Rabbs_34, Rattrick_34, Remy19_34, Renaissance_34, Richarlison_34, Ruriko_34, Schiebel_34, Sizemore_34, Sneeze_34, Sweets_34, Taheera_34, Terror_34, TinaBug_34, Wendigo_34, ZoMa_34, Zombie_34,

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

- BPs_34, GoldenAsh_34, Jolie2_32, Lemuria_33, LouisV14_36, ShaboiShabazz_34, TomBrady_34, WeirDo19_47,

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

- Antsirabe_32, Avocado_31, Bipper_52, Cambiare_32, Cloudyecho_32, Coriander_41, Cracklewink_52, Dmitri_41, Doggs_38, FlagStaff_31, GodSpeed_32, MOOREtheMARYer_33, Moonflower_40, Opie_44, Pace1224_31, Pinnie_33, Stargaze_32, TaronosaurusRx_43, YangYin_32,

Summary by start number:

Start 4:

- Found in 2 of 96 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jolie2_32 (G4), Lemuria_33 (G4),

Start 5:

- Found in 1 of 96 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LouisV14_36 (G1),

Start 7:

- Found in 4 of 96 (4.2%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Stargaze_32 (G5),

Start 9:

- Found in 77 of 96 (80.2%) of genes in pham
- Manual Annotations of this start: 58 of 78

- Called 89.6% of time when present
- Phage (with cluster) where this start called: AizenPogi_34 (G1), Angel_34 (G1), Annihilator_34 (G1), Aroostook_34 (G1), Avrafan_34 (G1), AzulaCat_34 (G1), BQuat_34 (G1), Barkley26_34 (G1), BruceB_34 (G1), CLED96_34 (G1), Camri_34 (G1), CassieYates_34 (G1), Cedasite_34 (G1), Chance64_34 (G1), Cherrybomb426_34 (G1), Coleslaw_34 (G1), Crespo_34 (G1), DMoney_34 (G1), DNAIII_0033 (G1), Darionha_34 (G1), DingDing_34 (G1), ECartman_34 (G1), Frosty24_34 (G1), Gideon_34 (G1), Gomashi_34 (G1), Grizzly_34 (G1), Halo_34 (G1), Hope_34 (G1), Hotshotbaby7_34 (G1), Jane_34 (G1), Jeilious_34 (G), Jolene_34 (G1), Jonghyun_34 (G1), JorRay_34 (G1), Kareem_34 (G1), Kasen3_34 (G1), Liefie_34 (G1), MZKinsey_34 (G1), Maliketh_34 (G1), Marmie_34 (G1), Mercurio_34 (G4), Mowgli_34 (G1), Neoh_34 (G), OctaviousRex_34 (G1), Olga_34 (G1), Paito_34 (G1), Peeb_34 (G1), Periodt_34 (G1), Phish_34 (G1), Phloodle_34 (G1), Phreak_34 (G1), PinkYoshi_34 (G1), Plagueis_34 (G1), Rabbs_34 (G1), Rattrick_34 (G1), Remy19_34 (G1), Renaissance_34 (G1), Richarlison_34 (G1), Ruriko_34 (G1), Schiebel_34 (G1), Sizemore_34 (G1), Sneeze_34 (G1), Sweets_34 (G1), Taheera_34 (G1), Terror_34 (G1), TinaBug_34 (G1), Wendigo_34 (G1), ZoMa_34 (G1), Zombie_34 (G1),

Start 10:

- Found in 87 of 96 (90.6%) of genes in pham
- Manual Annotations of this start: 5 of 78
- Called 8.0% of time when present
- Phage (with cluster) where this start called: Antsirabe_32 (G5), Bipper_52 (Y), Cambiare_32 (G2), Cracklewink_52 (Y), FlagStaff_31 (G2), Pace1224_31 (G2), YangYin_32 (G5),

Start 11:

- Found in 71 of 96 (74.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 2.8% of time when present
- Phage (with cluster) where this start called: GoldenAsh_34 (G1), Weirido19_47 (AH),

Start 12:

- Found in 88 of 96 (91.7%) of genes in pham
- Manual Annotations of this start: 6 of 78
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Avocado_31 (G2), BPs_34 (G1), Cloudyecho_32 (G3), GodSpeed_32 (G2), MOOREtheMARYer_33 (G3), Pinnie_33 (G3), ShaboiShabazz_34 (G1), TomBrady_34 (G1),

Start 13:

- Found in 6 of 96 (6.2%) of genes in pham
- Manual Annotations of this start: 5 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Coriander_41 (DB), Dmitri_41 (DB), Doggs_38 (DB), Moonflower_40 (DB), Opie_44 (DB), TaronosaurusRx_43 (DB),

Summary by clusters:

There are 9 clusters represented in this pham: G5, G4, G3, G2, G, AH, DB, Y, G1,

Info for manual annotations of cluster DB:

- Start number 13 was manually annotated 5 times for cluster DB.

Info for manual annotations of cluster G1:

- Start number 5 was manually annotated 1 time for cluster G1.
- Start number 9 was manually annotated 57 times for cluster G1.
- Start number 11 was manually annotated 1 time for cluster G1.
- Start number 12 was manually annotated 3 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 10 was manually annotated 2 times for cluster G2.
- Start number 12 was manually annotated 1 time for cluster G2.

Info for manual annotations of cluster G3:

- Start number 12 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 4 was manually annotated 1 time for cluster G4.
- Start number 9 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 7 was manually annotated 1 time for cluster G5.
- Start number 10 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster Y:

- Start number 10 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: AizenPogi_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for AizenPogi_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Angel_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Angel_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Annihilator_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for Annihilator_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Antsirabe_32 Start: 29568, Stop: 29807, Start Num: 10

Candidate Starts for Antsirabe_32:

(Start: 10 @29568 has 5 MA's), (Start: 12 @29577 has 6 MA's), (16, 29619), (17, 29646), (18, 29661), (22, 29724),

Gene: Aroostook_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Aroostook_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Avocado_31 Start: 29572, Stop: 29802, Start Num: 12

Candidate Starts for Avocado_31:

(1, 28903), (2, 28972), (3, 29260), (Start: 12 @29572 has 6 MA's), (16, 29614), (17, 29641), (18, 29656), (19, 29683), (22, 29719),

Gene: Avrafan_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Avrafan_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: AzulaCat_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for AzulaCat_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: BPs_34 Start: 29510, Stop: 29755, Start Num: 12

Candidate Starts for BPs_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: BQuat_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for BQuat_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Barkley26_34 Start: 29520, Stop: 29777, Start Num: 9

Candidate Starts for Barkley26_34:

(Start: 9 @29520 has 58 MA's), (Start: 10 @29523 has 5 MA's), (Start: 11 @29526 has 1 MA's), (Start: 12 @29532 has 6 MA's), (20, 29661), (24, 29703),

Gene: Bipper_52 Start: 40190, Stop: 40414, Start Num: 10

Candidate Starts for Bipper_52:

(8, 40184), (Start: 10 @40190 has 5 MA's),

Gene: BruceB_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for BruceB_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: CLED96_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for CLED96_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Cambiare_32 Start: 30030, Stop: 30269, Start Num: 10

Candidate Starts for Cambiare_32:

(Start: 10 @30030 has 5 MA's), (Start: 12 @30039 has 6 MA's), (17, 30108), (19, 30150), (22, 30186),

Gene: Camri_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Camri_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: CassieYates_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for CassieYates_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Cedasite_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Cedasite_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Chance64_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Chance64_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Cherrybomb426_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Cherrybomb426_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Cloudyecho_32 Start: 29772, Stop: 29990, Start Num: 12

Candidate Starts for Cloudyecho_32:

(6, 29739), (Start: 10 @29763 has 5 MA's), (Start: 12 @29772 has 6 MA's), (17, 29832), (18, 29847),

Gene: Coleslaw_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for Coleslaw_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Coriander_41 Start: 31926, Stop: 32126, Start Num: 13

Candidate Starts for Coriander_41:

(Start: 13 @31926 has 5 MA's),

Gene: Cracklewink_52 Start: 40183, Stop: 40407, Start Num: 10

Candidate Starts for Cracklewink_52:

(8, 40177), (Start: 10 @40183 has 5 MA's),

Gene: Crespo_34 Start: 29499, Stop: 29756, Start Num: 9

Candidate Starts for Crespo_34:

(Start: 9 @29499 has 58 MA's), (Start: 10 @29502 has 5 MA's), (Start: 11 @29505 has 1 MA's), (Start: 12 @29511 has 6 MA's), (20, 29640), (24, 29682),

Gene: DMoney_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for DMoney_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: DNAIII_0033 Start: 28132, Stop: 28389, Start Num: 9

Candidate Starts for DNAIII_0033:

(Start: 9 @28132 has 58 MA's), (Start: 10 @28135 has 5 MA's), (Start: 11 @28138 has 1 MA's), (Start: 12 @28144 has 6 MA's), (20, 28273), (24, 28315),

Gene: Darionha_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Darionha_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: DingDing_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for DingDing_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Dmitri_41 Start: 33516, Stop: 33710, Start Num: 13

Candidate Starts for Dmitri_41:

(Start: 13 @33516 has 5 MA's), (23, 33669),

Gene: Doggs_38 Start: 32655, Stop: 32855, Start Num: 13

Candidate Starts for Doggs_38:

(Start: 13 @32655 has 5 MA's),

Gene: ECartman_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for ECartman_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: FlagStaff_31 Start: 29350, Stop: 29589, Start Num: 10

Candidate Starts for FlagStaff_31:

(Start: 10 @29350 has 5 MA's), (Start: 12 @29359 has 6 MA's), (15, 29395), (16, 29401), (17, 29428), (18, 29443), (19, 29470), (22, 29506),

Gene: Frosty24_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Frosty24_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Gideon_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Gideon_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: GodSpeed_32 Start: 29382, Stop: 29612, Start Num: 12

Candidate Starts for GodSpeed_32:

(Start: 10 @29373 has 5 MA's), (Start: 12 @29382 has 6 MA's), (17, 29451), (18, 29466), (19, 29493), (21, 29526),

Gene: GoldenAsh_34 Start: 29504, Stop: 29755, Start Num: 11

Candidate Starts for GoldenAsh_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Gomashi_34 Start: 29499, Stop: 29756, Start Num: 9

Candidate Starts for Gomashi_34:

(Start: 9 @29499 has 58 MA's), (Start: 10 @29502 has 5 MA's), (Start: 11 @29505 has 1 MA's), (Start: 12 @29511 has 6 MA's), (20, 29640), (24, 29682),

Gene: Grizzly_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Grizzly_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Halo_34 Start: 29493, Stop: 29750, Start Num: 9

Candidate Starts for Halo_34:

(Start: 9 @29493 has 58 MA's), (Start: 10 @29496 has 5 MA's), (Start: 11 @29499 has 1 MA's), (Start: 12 @29505 has 6 MA's), (20, 29634), (24, 29676),

Gene: Hope_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Hope_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Hotshotbaby7_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Hotshotbaby7_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Jane_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Jane_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Jeilious_34 Start: 29497, Stop: 29754, Start Num: 9

Candidate Starts for Jeilious_34:

(Start: 9 @29497 has 58 MA's), (Start: 10 @29500 has 5 MA's), (Start: 11 @29503 has 1 MA's), (Start: 12 @29509 has 6 MA's), (20, 29638), (24, 29680),

Gene: Jolene_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Jolene_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Jolie2_32 Start: 28378, Stop: 28671, Start Num: 4

Candidate Starts for Jolie2_32:

(Start: 4 @28378 has 1 MA's), (Start: 7 @28414 has 1 MA's), (Start: 9 @28423 has 58 MA's), (Start: 10 @28426 has 5 MA's), (Start: 12 @28435 has 6 MA's),

Gene: Jonghyun_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Jonghyun_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: JorRay_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for JorRay_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Kareem_34 Start: 29498, Stop: 29755, Start Num: 9
Candidate Starts for Kareem_34:
(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Kasen3_34 Start: 29499, Stop: 29756, Start Num: 9
Candidate Starts for Kasen3_34:
(Start: 9 @29499 has 58 MA's), (Start: 10 @29502 has 5 MA's), (Start: 11 @29505 has 1 MA's), (Start: 12 @29511 has 6 MA's), (20, 29640), (24, 29682),

Gene: Lemuria_33 Start: 29447, Stop: 29740, Start Num: 4
Candidate Starts for Lemuria_33:
(Start: 4 @29447 has 1 MA's), (Start: 7 @29483 has 1 MA's), (Start: 9 @29492 has 58 MA's), (Start: 10 @29495 has 5 MA's), (Start: 12 @29504 has 6 MA's),

Gene: Liefie_34 Start: 29496, Stop: 29753, Start Num: 9
Candidate Starts for Liefie_34:
(Start: 9 @29496 has 58 MA's), (Start: 10 @29499 has 5 MA's), (Start: 11 @29502 has 1 MA's), (Start: 12 @29508 has 6 MA's), (20, 29637), (24, 29679),

Gene: LouisV14_36 Start: 31739, Stop: 32020, Start Num: 5
Candidate Starts for LouisV14_36:
(Start: 5 @31739 has 1 MA's), (Start: 9 @31763 has 58 MA's), (Start: 10 @31766 has 5 MA's), (Start: 11 @31769 has 1 MA's), (Start: 12 @31775 has 6 MA's), (20, 31904), (24, 31946),

Gene: MOOREtheMARYer_33 Start: 29854, Stop: 30084, Start Num: 12
Candidate Starts for MOOREtheMARYer_33:
(Start: 10 @29845 has 5 MA's), (Start: 12 @29854 has 6 MA's), (16, 29896), (17, 29923), (18, 29938), (19, 29965), (22, 30001),

Gene: MZKinsey_34 Start: 29498, Stop: 29755, Start Num: 9
Candidate Starts for MZKinsey_34:
(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Maliketh_34 Start: 29498, Stop: 29755, Start Num: 9
Candidate Starts for Maliketh_34:
(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Marmie_34 Start: 29498, Stop: 29755, Start Num: 9
Candidate Starts for Marmie_34:
(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Mercurio_34 Start: 30005, Stop: 30259, Start Num: 9
Candidate Starts for Mercurio_34:
(Start: 9 @30005 has 58 MA's), (Start: 12 @30017 has 6 MA's), (23, 30179),

Gene: Moonflower_40 Start: 33379, Stop: 33573, Start Num: 13
Candidate Starts for Moonflower_40:
(Start: 13 @33379 has 5 MA's), (23, 33532),

Gene: Mowgli_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Mowgli_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Neoh_34 Start: 29490, Stop: 29747, Start Num: 9

Candidate Starts for Neoh_34:

(Start: 9 @29490 has 58 MA's), (Start: 10 @29493 has 5 MA's), (Start: 11 @29496 has 1 MA's), (Start: 12 @29502 has 6 MA's), (20, 29631), (24, 29673),

Gene: OctaviousRex_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for OctaviousRex_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Olga_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Olga_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Opie_44 Start: 33313, Stop: 33507, Start Num: 13

Candidate Starts for Opie_44:

(Start: 13 @33313 has 5 MA's), (16, 33340), (24, 33484),

Gene: Pace1224_31 Start: 29350, Stop: 29589, Start Num: 10

Candidate Starts for Pace1224_31:

(Start: 10 @29350 has 5 MA's), (Start: 12 @29359 has 6 MA's), (16, 29401), (17, 29428), (18, 29443), (19, 29470), (22, 29506),

Gene: Paito_34 Start: 29679, Stop: 29936, Start Num: 9

Candidate Starts for Paito_34:

(Start: 9 @29679 has 58 MA's), (Start: 10 @29682 has 5 MA's), (Start: 12 @29691 has 6 MA's), (24, 29862),

Gene: Peeb_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Peeb_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Periodt_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for Periodt_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Phish_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Phish_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Phloodle_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Phloodle_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Phreak_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Phreak_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: PinkYoshi_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for PinkYoshi_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Pinnie_33 Start: 30225, Stop: 30455, Start Num: 12

Candidate Starts for Pinnie_33:

(Start: 10 @30216 has 5 MA's), (Start: 12 @30225 has 6 MA's), (16, 30267), (17, 30294), (18, 30309), (19, 30336), (22, 30372),

Gene: Plagueis_34 Start: 29333, Stop: 29590, Start Num: 9

Candidate Starts for Plagueis_34:

(Start: 9 @29333 has 58 MA's), (Start: 10 @29336 has 5 MA's), (Start: 11 @29339 has 1 MA's), (Start: 12 @29345 has 6 MA's), (20, 29474), (24, 29516),

Gene: Rabbs_34 Start: 29581, Stop: 29838, Start Num: 9

Candidate Starts for Rabbs_34:

(Start: 9 @29581 has 58 MA's), (Start: 10 @29584 has 5 MA's), (Start: 11 @29587 has 1 MA's), (Start: 12 @29593 has 6 MA's), (20, 29722),

Gene: Rattrick_34 Start: 29489, Stop: 29746, Start Num: 9

Candidate Starts for Rattrick_34:

(Start: 9 @29489 has 58 MA's), (Start: 10 @29492 has 5 MA's), (Start: 11 @29495 has 1 MA's), (Start: 12 @29501 has 6 MA's), (20, 29630), (24, 29672),

Gene: Remy19_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Remy19_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Renaissance_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Renaissance_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Richarlison_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Richarlison_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Ruriko_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Ruriko_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Schiebel_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Schiebel_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: ShaboiShabazz_34 Start: 29510, Stop: 29755, Start Num: 12

Candidate Starts for ShaboiShabazz_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Sizemore_34 Start: 29499, Stop: 29756, Start Num: 9

Candidate Starts for Sizemore_34:

(Start: 9 @29499 has 58 MA's), (Start: 10 @29502 has 5 MA's), (Start: 11 @29505 has 1 MA's), (Start: 12 @29511 has 6 MA's), (20, 29640), (24, 29682),

Gene: Sneeze_34 Start: 29580, Stop: 29837, Start Num: 9

Candidate Starts for Sneeze_34:

(Start: 9 @29580 has 58 MA's), (Start: 10 @29583 has 5 MA's), (Start: 11 @29586 has 1 MA's), (Start: 12 @29592 has 6 MA's), (20, 29721),

Gene: Stargaze_32 Start: 29578, Stop: 29838, Start Num: 7

Candidate Starts for Stargaze_32:

(Start: 7 @29578 has 1 MA's), (Start: 10 @29590 has 5 MA's), (Start: 12 @29599 has 6 MA's), (17, 29680), (18, 29695), (21, 29752),

Gene: Sweets_34 Start: 29493, Stop: 29750, Start Num: 9

Candidate Starts for Sweets_34:

(Start: 9 @29493 has 58 MA's), (Start: 10 @29496 has 5 MA's), (Start: 11 @29499 has 1 MA's), (Start: 12 @29505 has 6 MA's), (20, 29634), (24, 29676),

Gene: Taheera_34 Start: 29616, Stop: 29873, Start Num: 9

Candidate Starts for Taheera_34:

(Start: 9 @29616 has 58 MA's), (Start: 10 @29619 has 5 MA's), (Start: 12 @29628 has 6 MA's), (20, 29757),

Gene: TaronosaurusRx_43 Start: 31715, Stop: 31909, Start Num: 13

Candidate Starts for TaronosaurusRx_43:

(Start: 13 @31715 has 5 MA's),

Gene: Terror_34 Start: 29616, Stop: 29873, Start Num: 9

Candidate Starts for Terror_34:

(Start: 9 @29616 has 58 MA's), (Start: 10 @29619 has 5 MA's), (Start: 12 @29628 has 6 MA's), (20, 29757),

Gene: TinaBug_34 Start: 29493, Stop: 29750, Start Num: 9

Candidate Starts for TinaBug_34:

(Start: 9 @29493 has 58 MA's), (Start: 10 @29496 has 5 MA's), (Start: 11 @29499 has 1 MA's), (Start: 12 @29505 has 6 MA's), (20, 29634), (24, 29676),

Gene: TomBrady_34 Start: 29511, Stop: 29756, Start Num: 12

Candidate Starts for TomBrady_34:

(Start: 9 @29499 has 58 MA's), (Start: 10 @29502 has 5 MA's), (Start: 11 @29505 has 1 MA's), (Start: 12 @29511 has 6 MA's), (20, 29640), (24, 29682),

Gene: Weirdo19_47 Start: 35144, Stop: 35377, Start Num: 11

Candidate Starts for Weirdo19_47:

(Start: 9 @35138 has 58 MA's), (Start: 11 @35144 has 1 MA's), (Start: 12 @35150 has 6 MA's), (14, 35162), (23, 35306), (24, 35324), (25, 35357),

Gene: Wendigo_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Wendigo_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: YangYin_32 Start: 29616, Stop: 29864, Start Num: 10

Candidate Starts for YangYin_32:

(Start: 7 @29604 has 1 MA's), (Start: 10 @29616 has 5 MA's), (Start: 12 @29625 has 6 MA's), (17, 29706), (18, 29721), (21, 29778),

Gene: ZoMa_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for ZoMa_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),

Gene: Zombie_34 Start: 29498, Stop: 29755, Start Num: 9

Candidate Starts for Zombie_34:

(Start: 9 @29498 has 58 MA's), (Start: 10 @29501 has 5 MA's), (Start: 11 @29504 has 1 MA's), (Start: 12 @29510 has 6 MA's), (20, 29639), (24, 29681),