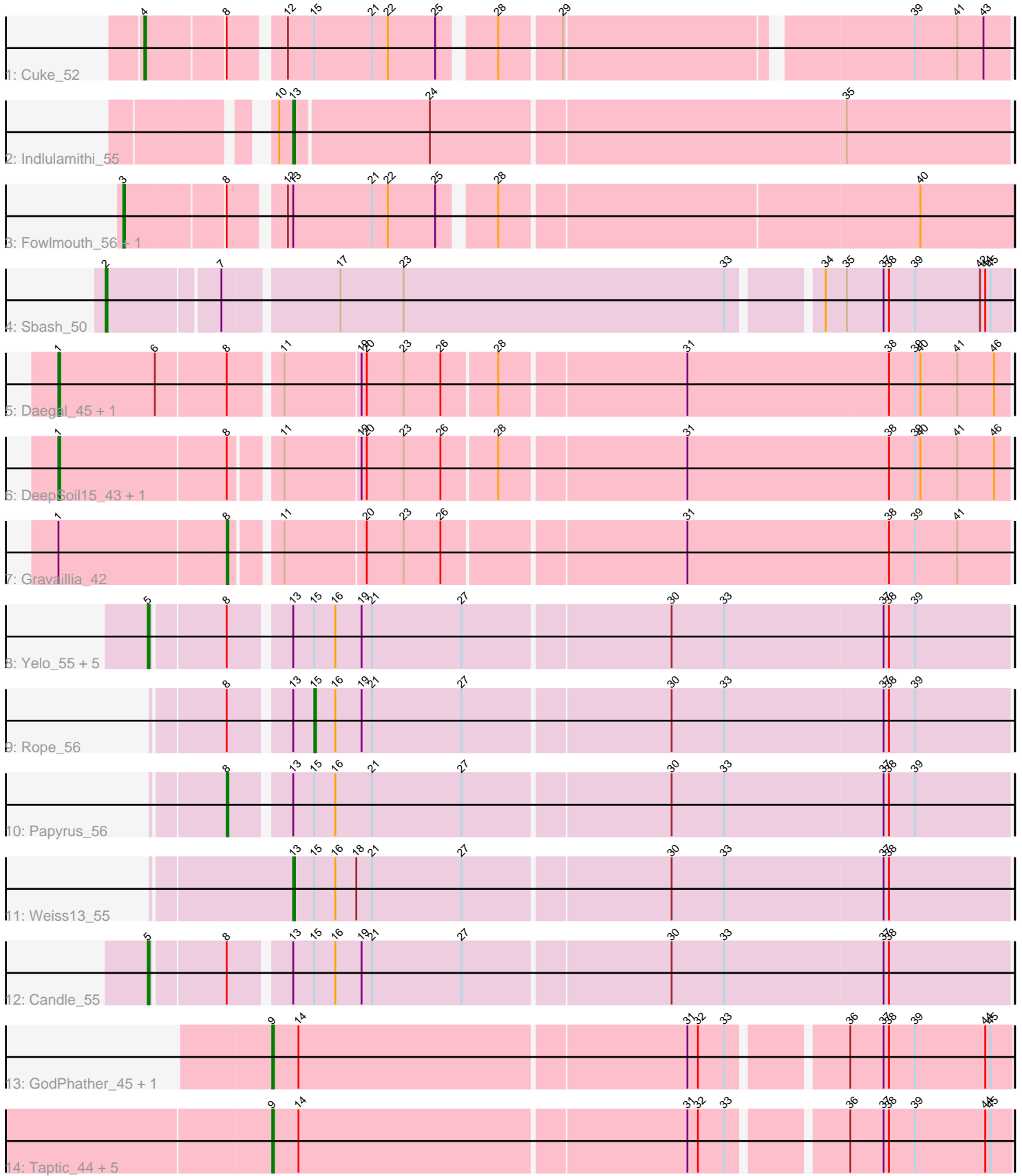


Pham 203202



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 203202 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203202 has 28 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Cuke\_52
- Track 2 : Indlulamithi\_55
- Track 3 : Fowlmouth\_56, MrMiyagi\_55
- Track 4 : Sbash\_50
- Track 5 : Daegal\_45, Gancho\_42
- Track 6 : DeepSoil15\_43, Wishmaker\_41
- Track 7 : Gravaillia\_42
- Track 8 : Yelo\_55, Nilo\_57, Zenon\_56, Send513\_56, MontyDev\_56, Riparian\_57
- Track 9 : Rope\_56
- Track 10 : Papyrus\_56
- Track 11 : Weiss13\_55
- Track 12 : Candle\_55
- Track 13 : GodPhather\_45, Jeon\_44
- Track 14 : Taptic\_44, Argie\_45, Cepens\_44, D12\_43, PR\_44, Megabear\_44

### ***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 8 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Argie\_45, Cepens\_44, D12\_43, GodPhather\_45, Jeon\_44, Megabear\_44, PR\_44, Taptic\_44,

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

- 

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

- Candle\_55, Cuke\_52, Daegal\_45, DeepSoil15\_43, Fowlmouth\_56, Gancho\_42, Gravaillia\_42, Indlulamithi\_55, MontyDev\_56, MrMiyagi\_55, Nilo\_57, Papyrus\_56, Riparian\_57, Rope\_56, Sbash\_50, Send513\_56, Weiss13\_55, Wishmaker\_41, Yelo\_55, Zenon\_56,

### **Summary by start number:**

Start 1:

- Found in 5 of 28 ( 17.9% ) of genes in pham
- Manual Annotations of this start: 4 of 27
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Daegal\_45 (Q), DeepSoil15\_43 (Q), Gancho\_42 (Q), Wishmaker\_41 (Q),

Start 2:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sbash\_50 (I2),

Start 3:

- Found in 2 of 28 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fowlmouth\_56 (AC), MrMiyagi\_55 (AC),

Start 4:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke\_52 (AC),

Start 5:

- Found in 7 of 28 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle\_55 (R), MontyDev\_56 (R), Nilo\_57 (R), Riparian\_57 (R), Send513\_56 (R), Yelo\_55 (R), Zenon\_56 (R),

Start 8:

- Found in 17 of 28 ( 60.7% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 11.8% of time when present
- Phage (with cluster) where this start called: Gravallia\_42 (Q), Papyrus\_56 (R),

Start 9:

- Found in 8 of 28 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 8 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie\_45 (W), Cepens\_44 (W), D12\_43 (W), GodPhather\_45 (W), Jeon\_44 (W), Megabear\_44 (W), PR\_44 (W), Taptic\_44 (W),

Start 13:

- Found in 13 of 28 ( 46.4% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_55 (AC), Weiss13\_55 (R),

Start 15:

- Found in 11 of 28 ( 39.3% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Rope\_56 (R),

### **Summary by clusters:**

There are 5 clusters represented in this pham: Q, AC, R, I2, W,

Info for manual annotations of cluster AC:

- Start number 3 was manually annotated 2 times for cluster AC.
- Start number 4 was manually annotated 1 time for cluster AC.
- Start number 13 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster I2:

- Start number 2 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster Q:

- Start number 1 was manually annotated 4 times for cluster Q.
- Start number 8 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster R:

- Start number 5 was manually annotated 6 times for cluster R.
- Start number 8 was manually annotated 1 time for cluster R.
- Start number 13 was manually annotated 1 time for cluster R.
- Start number 15 was manually annotated 1 time for cluster R.

Info for manual annotations of cluster W:

- Start number 9 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: Argie\_45 Start: 40492, Stop: 40893, Start Num: 9

Candidate Starts for Argie\_45:

(Start: 9 @40492 has 8 MA's), (14, 40507), (31, 40723), (32, 40729), (33, 40744), (36, 40804), (37, 40822), (38, 40825), (39, 40840), (44, 40879), (45, 40882),

Gene: Candle\_55 Start: 42652, Stop: 43122, Start Num: 5

Candidate Starts for Candle\_55:

(Start: 5 @42652 has 6 MA's), (Start: 8 @42691 has 2 MA's), (Start: 13 @42721 has 2 MA's), (Start: 15 @42733 has 1 MA's), (16, 42745), (19, 42760), (21, 42766), (27, 42817), (30, 42931), (33, 42961), (37, 43051), (38, 43054),

Gene: Cepens\_44 Start: 40207, Stop: 40608, Start Num: 9

Candidate Starts for Cepens\_44:

(Start: 9 @40207 has 8 MA's), (14, 40222), (31, 40438), (32, 40444), (33, 40459), (36, 40519), (37, 40537), (38, 40540), (39, 40555), (44, 40594), (45, 40597),

Gene: Cuke\_52 Start: 36064, Stop: 36516, Start Num: 4

Candidate Starts for Cuke\_52:

(Start: 4 @36064 has 1 MA's), (Start: 8 @36106 has 2 MA's), (12, 36133), (Start: 15 @36148 has 1 MA's), (21, 36181), (22, 36190), (25, 36217), (28, 36244), (29, 36277), (39, 36463), (41, 36487), (43, 36502),

Gene: D12\_43 Start: 40755, Stop: 41156, Start Num: 9

Candidate Starts for D12\_43:

(Start: 9 @40755 has 8 MA's), (14, 40770), (31, 40986), (32, 40992), (33, 41007), (36, 41067), (37, 41085), (38, 41088), (39, 41103), (44, 41142), (45, 41145),

Gene: Daegal\_45 Start: 33993, Stop: 33472, Start Num: 1

Candidate Starts for Daegal\_45:

(Start: 1 @33993 has 4 MA's), (6, 33939), (Start: 8 @33900 has 2 MA's), (11, 33873), (19, 33831), (20, 33828), (23, 33807), (26, 33786), (28, 33756), (31, 33654), (38, 33540), (39, 33525), (40, 33522), (41, 33501), (46, 33480),

Gene: DeepSoil15\_43 Start: 33409, Stop: 32891, Start Num: 1

Candidate Starts for DeepSoil15\_43:

(Start: 1 @33409 has 4 MA's), (Start: 8 @33316 has 2 MA's), (11, 33292), (19, 33250), (20, 33247), (23, 33226), (26, 33205), (28, 33175), (31, 33073), (38, 32959), (39, 32944), (40, 32941), (41, 32920), (46, 32899),

Gene: Fowlmouth\_56 Start: 39448, Stop: 39924, Start Num: 3

Candidate Starts for Fowlmouth\_56:

(Start: 3 @39448 has 2 MA's), (Start: 8 @39502 has 2 MA's), (12, 39529), (Start: 13 @39532 has 2 MA's), (21, 39577), (22, 39586), (25, 39613), (28, 39640), (40, 39871),

Gene: Gancho\_42 Start: 33132, Stop: 32614, Start Num: 1

Candidate Starts for Gancho\_42:

(Start: 1 @33132 has 4 MA's), (6, 33078), (Start: 8 @33039 has 2 MA's), (11, 33015), (19, 32973), (20, 32970), (23, 32949), (26, 32928), (28, 32898), (31, 32796), (38, 32682), (39, 32667), (40, 32664), (41, 32643), (46, 32622),

Gene: GodPhather\_45 Start: 40971, Stop: 41372, Start Num: 9

Candidate Starts for GodPhather\_45:

(Start: 9 @40971 has 8 MA's), (14, 40986), (31, 41202), (32, 41208), (33, 41223), (36, 41283), (37, 41301), (38, 41304), (39, 41319), (44, 41358), (45, 41361),

Gene: Gravaillia\_42 Start: 33359, Stop: 32934, Start Num: 8

Candidate Starts for Gravaillia\_42:

(Start: 1 @33452 has 4 MA's), (Start: 8 @33359 has 2 MA's), (11, 33335), (20, 33290), (23, 33269), (26, 33248), (31, 33116), (38, 33002), (39, 32987), (41, 32963),

Gene: Indlulamithi\_55 Start: 41815, Stop: 42213, Start Num: 13

Candidate Starts for Indlulamithi\_55:

(10, 41809), (Start: 13 @41815 has 2 MA's), (24, 41890), (35, 42121),

Gene: Jeon\_44 Start: 40713, Stop: 41114, Start Num: 9

Candidate Starts for Jeon\_44:

(Start: 9 @40713 has 8 MA's), (14, 40728), (31, 40944), (32, 40950), (33, 40965), (36, 41025), (37, 41043), (38, 41046), (39, 41061), (44, 41100), (45, 41103),

Gene: Megabear\_44 Start: 40128, Stop: 40529, Start Num: 9

Candidate Starts for Megabear\_44:

(Start: 9 @40128 has 8 MA's), (14, 40143), (31, 40359), (32, 40365), (33, 40380), (36, 40440), (37, 40458), (38, 40461), (39, 40476), (44, 40515), (45, 40518),

Gene: MontyDev\_56 Start: 42299, Stop: 42769, Start Num: 5

Candidate Starts for MontyDev\_56:

(Start: 5 @42299 has 6 MA's), (Start: 8 @42338 has 2 MA's), (Start: 13 @42368 has 2 MA's), (Start: 15 @42380 has 1 MA's), (16, 42392), (19, 42407), (21, 42413), (27, 42464), (30, 42578), (33, 42608), (37, 42698), (38, 42701), (39, 42716),

Gene: MrMiyagi\_55 Start: 39832, Stop: 40308, Start Num: 3

Candidate Starts for MrMiyagi\_55:

(Start: 3 @39832 has 2 MA's), (Start: 8 @39886 has 2 MA's), (12, 39913), (Start: 13 @39916 has 2 MA's), (21, 39961), (22, 39970), (25, 39997), (28, 40024), (40, 40255),

Gene: Nilo\_57 Start: 42651, Stop: 43121, Start Num: 5

Candidate Starts for Nilo\_57:

(Start: 5 @42651 has 6 MA's), (Start: 8 @42690 has 2 MA's), (Start: 13 @42720 has 2 MA's), (Start: 15 @42732 has 1 MA's), (16, 42744), (19, 42759), (21, 42765), (27, 42816), (30, 42930), (33, 42960), (37, 43050), (38, 43053), (39, 43068),

Gene: PR\_44 Start: 40732, Stop: 41133, Start Num: 9

Candidate Starts for PR\_44:

(Start: 9 @40732 has 8 MA's), (14, 40747), (31, 40963), (32, 40969), (33, 40984), (36, 41044), (37, 41062), (38, 41065), (39, 41080), (44, 41119), (45, 41122),

Gene: Papyrus\_56 Start: 42546, Stop: 42977, Start Num: 8

Candidate Starts for Papyrus\_56:

(Start: 8 @42546 has 2 MA's), (Start: 13 @42576 has 2 MA's), (Start: 15 @42588 has 1 MA's), (16, 42600), (21, 42621), (27, 42672), (30, 42786), (33, 42816), (37, 42906), (38, 42909), (39, 42924),

Gene: Riparian\_57 Start: 42099, Stop: 42569, Start Num: 5

Candidate Starts for Riparian\_57:

(Start: 5 @42099 has 6 MA's), (Start: 8 @42138 has 2 MA's), (Start: 13 @42168 has 2 MA's), (Start: 15 @42180 has 1 MA's), (16, 42192), (19, 42207), (21, 42213), (27, 42264), (30, 42378), (33, 42408), (37, 42498), (38, 42501), (39, 42516),

Gene: Rope\_56 Start: 42577, Stop: 42966, Start Num: 15

Candidate Starts for Rope\_56:

(Start: 8 @42535 has 2 MA's), (Start: 13 @42565 has 2 MA's), (Start: 15 @42577 has 1 MA's), (16, 42589), (19, 42604), (21, 42610), (27, 42661), (30, 42775), (33, 42805), (37, 42895), (38, 42898), (39, 42913),

Gene: Sbash\_50 Start: 38735, Stop: 39223, Start Num: 2

Candidate Starts for Sbash\_50:

(Start: 2 @38735 has 1 MA's), (7, 38795), (17, 38855), (23, 38891), (33, 39074), (34, 39119), (35, 39131), (37, 39152), (38, 39155), (39, 39170), (42, 39206), (44, 39209), (45, 39212),

Gene: Send513\_56 Start: 42632, Stop: 43102, Start Num: 5

Candidate Starts for Send513\_56:

(Start: 5 @42632 has 6 MA's), (Start: 8 @42671 has 2 MA's), (Start: 13 @42701 has 2 MA's), (Start: 15 @42713 has 1 MA's), (16, 42725), (19, 42740), (21, 42746), (27, 42797), (30, 42911), (33, 42941), (37, 43031), (38, 43034), (39, 43049),

Gene: Taptic\_44 Start: 40128, Stop: 40529, Start Num: 9

Candidate Starts for Taptic\_44:

(Start: 9 @40128 has 8 MA's), (14, 40143), (31, 40359), (32, 40365), (33, 40380), (36, 40440), (37, 40458), (38, 40461), (39, 40476), (44, 40515), (45, 40518),

Gene: Weiss13\_55 Start: 42405, Stop: 42806, Start Num: 13

Candidate Starts for Weiss13\_55:

(Start: 13 @42405 has 2 MA's), (Start: 15 @42417 has 1 MA's), (16, 42429), (18, 42441), (21, 42450), (27, 42501), (30, 42615), (33, 42645), (37, 42735), (38, 42738),

Gene: Wishmaker\_41 Start: 33409, Stop: 32891, Start Num: 1

Candidate Starts for Wishmaker\_41:

(Start: 1 @33409 has 4 MA's), (Start: 8 @33316 has 2 MA's), (11, 33292), (19, 33250), (20, 33247), (23, 33226), (26, 33205), (28, 33175), (31, 33073), (38, 32959), (39, 32944), (40, 32941), (41, 32920), (46, 32899),

Gene: Yelo\_55 Start: 42715, Stop: 43185, Start Num: 5

Candidate Starts for Yelo\_55:

(Start: 5 @42715 has 6 MA's), (Start: 8 @42754 has 2 MA's), (Start: 13 @42784 has 2 MA's), (Start: 15 @42796 has 1 MA's), (16, 42808), (19, 42823), (21, 42829), (27, 42880), (30, 42994), (33, 43024), (37, 43114), (38, 43117), (39, 43132),

Gene: Zenon\_56 Start: 42661, Stop: 43131, Start Num: 5

Candidate Starts for Zenon\_56:

(Start: 5 @42661 has 6 MA's), (Start: 8 @42700 has 2 MA's), (Start: 13 @42730 has 2 MA's), (Start: 15 @42742 has 1 MA's), (16, 42754), (19, 42769), (21, 42775), (27, 42826), (30, 42940), (33, 42970), (37, 43060), (38, 43063), (39, 43078),