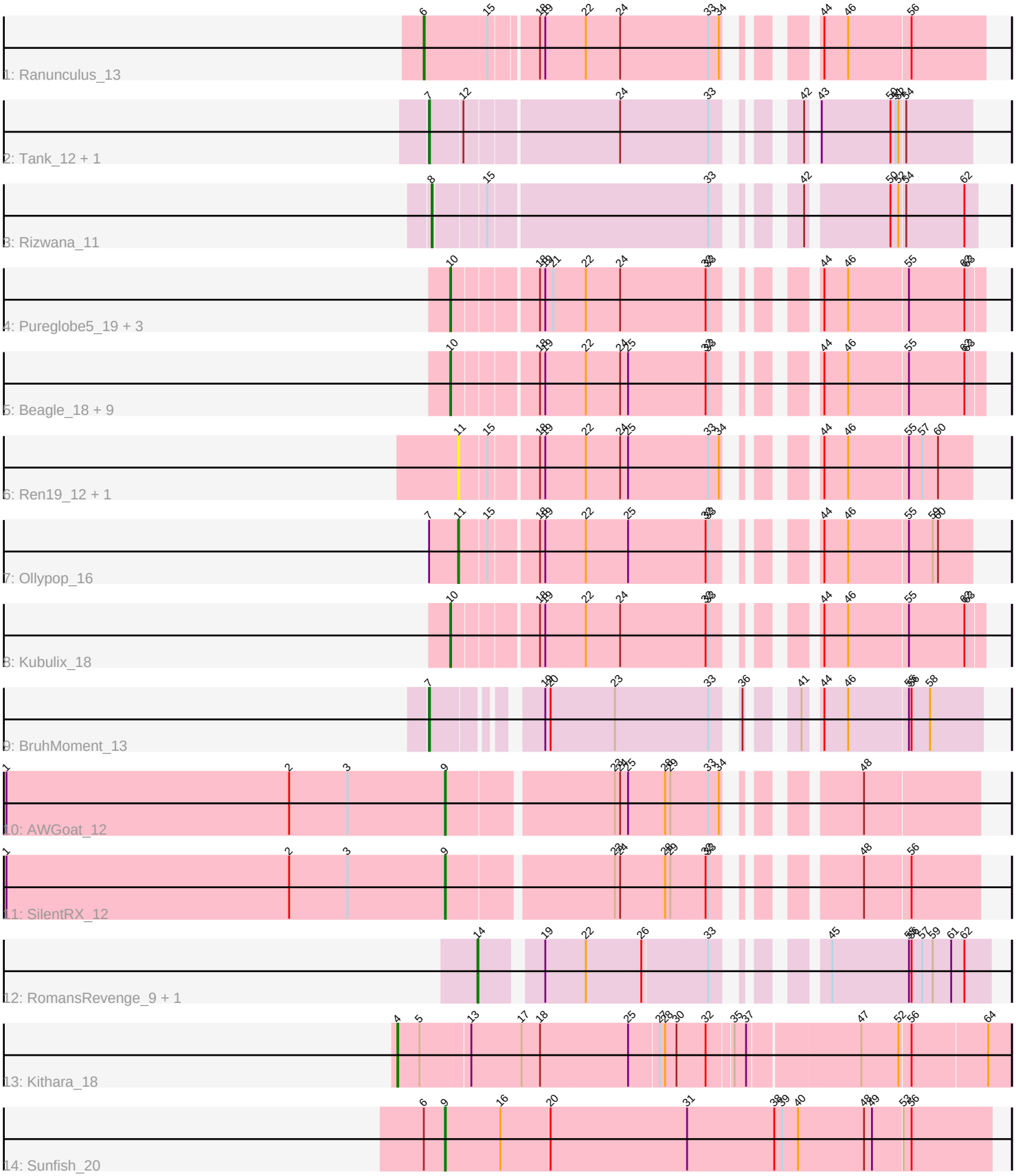
Pham 296816


1: Ranunculus_13
2: Tank_12 + 1
3: Rizwana_11
4: Pureglobe5_19 + 3
5: Beagle_18 + 9
6: Ren19_12 + 1
7: Ollypop_16
8: Kubulix_18
9: BruhMoment_13
10: AWGoat_12
11: SilentRX_12
12: RomansRevenge_9 + 1
13: Kithara_18
14: Sunfish_20

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 296816 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296816 has 29 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Ranunculus_13
• Track 2 : Tank_12, Wilde_12
• Track 3 : Rizwana_11
• Track 4 : Pureglobe5_19, Popstraw_16, Odyssey395_19, BetaFish_17
• Track 5 : Beagle_18, Pointis_17, Hive_16, RazzB_14, MellowYellow_15, Forrestell_15, NyleyClemson_15, PhuzzTulsa_15, RIPWilbur_15, DogYard_17
• Track 6 : Ren19_12, Nikan_14
• Track 7 : Ollypop_16
• Track 8 : Kubulix_18
• Track 9 : BruhMoment_13
• Track 10 : AWGoat_12
• Track 11 : SilentRX_12
• Track 12 : RomansRevenge_9, Boise_9
• Track 13 : Kithara_18
• Track 14 : Sunfish_20

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

The start number called the most often in the published annotations is 10, it was called in 9 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Beagle_18, BetaFish_17, DogYard_17, Forrestell_15, Hive_16, Kubulix_18, MellowYellow_15, NyleyClemson_15, Odyssey395_19, PhuzzTulsa_15, Pointis_17, Popstraw_16, Pureglobe5_19, RIPWilbur_15, RazzB_14,

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

Genes that do not have the "Most Annotated" start:
• AWGoat_12, Boise_9, BruhMoment_13, Kithara_18, Nikan_14, Ollypop_16, Ranunculus_13, Ren19_12, Rizwana_11, RomansRevenge_9, SilentRX_12, Sunfish_20, Tank_12, Wilde_12,

Summary by start number:

Start 4:
• Found in 1 of 29 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kithara_18 (singleton),

Start 6:
• Found in 2 of 29 (6.9%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Ranunculus_13 (AP),

Start 7:
• Found in 4 of 29 (13.8%) of genes in pham
• Manual Annotations of this start: 3 of 20
• Called 75.0% of time when present
• Phage (with cluster) where this start called: BruhMoment_13 (AP3), Tank_12 (AP1), Wilde_12 (AP1),

Start 8:
• Found in 1 of 29 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rizwana_11 (AP1),

Start 9:
• Found in 3 of 29 (10.3%) of genes in pham
• Manual Annotations of this start: 3 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AWGoat_12 (AP4), SilentRX_12 (AP4), Sunfish_20 (singleton),

Start 10:
• Found in 15 of 29 (51.7%) of genes in pham
• Manual Annotations of this start: 9 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beagle_18 (AP2), BetaFish_17 (AP2), DogYard_17 (AP2), Forrestell_15 (AP2), Hive_16 (AP2), Kubulix_18 (AP2), MellowYellow_15 (AP2), NyleyClemson_15 (AP2), Odyssey395_19 (AP2), PhuzzTulsa_15 (AP2), Pointis_17 (AP2), Popstraw_16 (AP2), Pureglobe5_19 (AP2), RIPWilbur_15 (AP2), RazzB_14 (AP2),

Start 11:
• Found in 3 of 29 (10.3%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nikan_14 (AP2), Ollypop_16 (AP2), Ren19_12 (AP2),

Start 14:
• Found in 2 of 29 (6.9%) of genes in pham

• Manual Annotations of this start: 1 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Boise_9 (FT), RomansRevenge_9 (FT),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, FT, AP2, AP3, AP1, AP4, AP,

Info for manual annotations of cluster AP:
•Start number 6 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:
•Start number 7 was manually annotated 2 times for cluster AP1.
•Start number 8 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AP2:
•Start number 10 was manually annotated 9 times for cluster AP2.
•Start number 11 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP3:
•Start number 7 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:
•Start number 9 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster FT:
•Start number 14 was manually annotated 1 time for cluster FT.

Gene Information:

Gene: AWGoat_12 Start: 5020, Stop: 5541, Start Num: 9
Candidate Starts for AWGoat_12:
(1, 4522), (2, 4843), (3, 4909), (Start: 9 @5020 has 3 MA's), (23, 5197), (24, 5203), (25, 5212), (28, 5254), (29, 5260), (33, 5302), (34, 5314), (48, 5413),

Gene: Beagle_18 Start: 5586, Stop: 6104, Start Num: 10
Candidate Starts for Beagle_18:
(Start: 10 @5586 has 9 MA's), (18, 5673), (19, 5679), (22, 5724), (24, 5763), (25, 5772), (32, 5859), (33, 5862), (44, 5928), (46, 5955), (55, 6021), (62, 6084), (63, 6087),

Gene: BetaFish_17 Start: 5789, Stop: 6307, Start Num: 10
Candidate Starts for BetaFish_17:
(Start: 10 @5789 has 9 MA's), (18, 5876), (19, 5882), (21, 5891), (22, 5927), (24, 5966), (32, 6062), (33, 6065), (44, 6131), (46, 6158), (55, 6224), (62, 6287), (63, 6290),

Gene: Boise_9 Start: 3610, Stop: 4101, Start Num: 14
Candidate Starts for Boise_9:
(Start: 14 @3610 has 1 MA's), (19, 3667), (22, 3712), (26, 3775), (33, 3847), (45, 3922), (55, 4009), (56, 4012), (57, 4024), (59, 4036), (61, 4057), (62, 4072),

Gene: BruhMoment_13 Start: 5305, Stop: 5826, Start Num: 7
Candidate Starts for BruhMoment_13:
(Start: 7 @5305 has 3 MA's), (19, 5401), (20, 5407), (23, 5479), (33, 5584), (36, 5602), (41, 5638), (44, 5650), (46, 5677), (55, 5743), (56, 5746), (58, 5767),

Gene: DogYard_17 Start: 5656, Stop: 6174, Start Num: 10
Candidate Starts for DogYard_17:
(Start: 10 @5656 has 9 MA's), (18, 5743), (19, 5749), (22, 5794), (24, 5833), (25, 5842), (32, 5929), (33, 5932), (44, 5998), (46, 6025), (55, 6091), (62, 6154), (63, 6157),

Gene: Forrestell_15 Start: 5013, Stop: 5531, Start Num: 10
Candidate Starts for Forrestell_15:
(Start: 10 @5013 has 9 MA's), (18, 5100), (19, 5106), (22, 5151), (24, 5190), (25, 5199), (32, 5286), (33, 5289), (44, 5355), (46, 5382), (55, 5448), (62, 5511), (63, 5514),

Gene: Hive_16 Start: 5670, Stop: 6188, Start Num: 10
Candidate Starts for Hive_16:
(Start: 10 @5670 has 9 MA's), (18, 5757), (19, 5763), (22, 5808), (24, 5847), (25, 5856), (32, 5943), (33, 5946), (44, 6012), (46, 6039), (55, 6105), (62, 6168), (63, 6171),

Gene: Kithara_18 Start: 6930, Stop: 7589, Start Num: 4
Candidate Starts for Kithara_18:
(Start: 4 @6930 has 1 MA's), (5, 6954), (13, 7008), (17, 7065), (18, 7086), (25, 7185), (27, 7218), (28, 7224), (30, 7236), (32, 7269), (35, 7296), (37, 7305), (47, 7425), (52, 7467), (56, 7479), (64, 7563),

Gene: Kubulix_18 Start: 5785, Stop: 6303, Start Num: 10
Candidate Starts for Kubulix_18:
(Start: 10 @5785 has 9 MA's), (18, 5872), (19, 5878), (22, 5923), (24, 5962), (32, 6058), (33, 6061), (44, 6127), (46, 6154), (55, 6220), (62, 6283), (63, 6286),

Gene: MellowYellow_15 Start: 5043, Stop: 5561, Start Num: 10
Candidate Starts for MellowYellow_15:
(Start: 10 @5043 has 9 MA's), (18, 5130), (19, 5136), (22, 5181), (24, 5220), (25, 5229), (32, 5316), (33, 5319), (44, 5385), (46, 5412), (55, 5478), (62, 5541), (63, 5544),

Gene: Nikan_14 Start: 5509, Stop: 6009, Start Num: 11
Candidate Starts for Nikan_14:
(Start: 11 @5509 has 1 MA's), (15, 5539), (18, 5590), (19, 5596), (22, 5641), (24, 5680), (25, 5689), (33, 5779), (34, 5791), (44, 5845), (46, 5872), (55, 5938), (57, 5953), (60, 5971),

Gene: NyleyClemson_15 Start: 4985, Stop: 5503, Start Num: 10
Candidate Starts for NyleyClemson_15:
(Start: 10 @4985 has 9 MA's), (18, 5072), (19, 5078), (22, 5123), (24, 5162), (25, 5171), (32, 5258), (33, 5261), (44, 5327), (46, 5354), (55, 5420), (62, 5483), (63, 5486),

Gene: Odyssey395_19 Start: 5787, Stop: 6305, Start Num: 10
Candidate Starts for Odyssey395_19:
(Start: 10 @5787 has 9 MA's), (18, 5874), (19, 5880), (21, 5889), (22, 5925), (24, 5964), (32, 6060), (33, 6063), (44, 6129), (46, 6156), (55, 6222), (62, 6285), (63, 6288),

Gene: Ollypop_16 Start: 5474, Stop: 5974, Start Num: 11
Candidate Starts for Ollypop_16:

(Start: 7 @5441 has 3 MA's), (Start: 11 @5474 has 1 MA's), (15, 5504), (18, 5555), (19, 5561), (22, 5606), (25, 5654), (32, 5741), (33, 5744), (44, 5810), (46, 5837), (55, 5903), (59, 5930), (60, 5936),

Gene: PhuzzTulsa_15 Start: 5574, Stop: 6092, Start Num: 10
Candidate Starts for PhuzzTulsa_15:
(Start: 10 @5574 has 9 MA's), (18, 5661), (19, 5667), (22, 5712), (24, 5751), (25, 5760), (32, 5847), (33, 5850), (44, 5916), (46, 5943), (55, 6009), (62, 6072), (63, 6075),

Gene: Pointis_17 Start: 5785, Stop: 6303, Start Num: 10
Candidate Starts for Pointis_17:
(Start: 10 @5785 has 9 MA's), (18, 5872), (19, 5878), (22, 5923), (24, 5962), (25, 5971), (32, 6058), (33, 6061), (44, 6127), (46, 6154), (55, 6220), (62, 6283), (63, 6286),

Gene: Popstraw_16 Start: 5574, Stop: 6092, Start Num: 10
Candidate Starts for Popstraw_16:
(Start: 10 @5574 has 9 MA's), (18, 5661), (19, 5667), (21, 5676), (22, 5712), (24, 5751), (32, 5847), (33, 5850), (44, 5916), (46, 5943), (55, 6009), (62, 6072), (63, 6075),

Gene: Pureglobe5_19 Start: 5801, Stop: 6319, Start Num: 10
Candidate Starts for Pureglobe5_19:
(Start: 10 @5801 has 9 MA's), (18, 5888), (19, 5894), (21, 5903), (22, 5939), (24, 5978), (32, 6074), (33, 6077), (44, 6143), (46, 6170), (55, 6236), (62, 6299), (63, 6302),

Gene: RIPWilbur_15 Start: 5438, Stop: 5956, Start Num: 10
Candidate Starts for RIPWilbur_15:
(Start: 10 @5438 has 9 MA's), (18, 5525), (19, 5531), (22, 5576), (24, 5615), (25, 5624), (32, 5711), (33, 5714), (44, 5780), (46, 5807), (55, 5873), (62, 5936), (63, 5939),

Gene: Ranunculus_13 Start: 5362, Stop: 5913, Start Num: 6
Candidate Starts for Ranunculus_13:
(Start: 6 @5362 has 1 MA's), (15, 5431), (18, 5479), (19, 5485), (22, 5530), (24, 5569), (33, 5668), (34, 5680), (44, 5734), (46, 5761), (56, 5830),

Gene: RazzB_14 Start: 4813, Stop: 5331, Start Num: 10
Candidate Starts for RazzB_14:
(Start: 10 @4813 has 9 MA's), (18, 4900), (19, 4906), (22, 4951), (24, 4990), (25, 4999), (32, 5086), (33, 5089), (44, 5155), (46, 5182), (55, 5248), (62, 5311), (63, 5314),

Gene: Ren19_12 Start: 5509, Stop: 6009, Start Num: 11
Candidate Starts for Ren19_12:
(Start: 11 @5509 has 1 MA's), (15, 5539), (18, 5590), (19, 5596), (22, 5641), (24, 5680), (25, 5689), (33, 5779), (34, 5791), (44, 5845), (46, 5872), (55, 5938), (57, 5953), (60, 5971),

Gene: Rizwana_11 Start: 5074, Stop: 5604, Start Num: 8
Candidate Starts for Rizwana_11:
(Start: 8 @5074 has 1 MA's), (15, 5128), (33, 5368), (42, 5425), (50, 5509), (52, 5518), (54, 5524), (62, 5590),

Gene: RomansRevenge_9 Start: 3610, Stop: 4101, Start Num: 14
Candidate Starts for RomansRevenge_9:
(Start: 14 @3610 has 1 MA's), (19, 3667), (22, 3712), (26, 3775), (33, 3847), (45, 3922), (55, 4009), (56, 4012), (57, 4024), (59, 4036), (61, 4057), (62, 4072),

Gene: SilentRX_12 Start: 4625, Stop: 5146, Start Num: 9
Candidate Starts for SilentRX_12:
(1, 4127), (2, 4448), (3, 4514), (Start: 9 @4625 has 3 MA's), (23, 4802), (24, 4808), (28, 4859), (29, 4865), (32, 4904), (33, 4907), (48, 5018), (56, 5069),

Gene: Sunfish_20 Start: 6499, Stop: 7113, Start Num: 9
Candidate Starts for Sunfish_20:
(Start: 6 @6475 has 1 MA's), (Start: 9 @6499 has 3 MA's), (16, 6562), (20, 6619), (31, 6772), (38, 6871), (39, 6880), (40, 6898), (48, 6973), (49, 6982), (53, 7015), (56, 7024),

Gene: Tank_12 Start: 5089, Stop: 5619, Start Num: 7
Candidate Starts for Tank_12:
(Start: 7 @5089 has 3 MA's), (12, 5125), (24, 5290), (33, 5389), (42, 5446), (43, 5452), (50, 5530), (51, 5536), (52, 5539), (54, 5545),

Gene: Wilde_12 Start: 5017, Stop: 5547, Start Num: 7
Candidate Starts for Wilde_12:
(Start: 7 @5017 has 3 MA's), (12, 5053), (24, 5218), (33, 5317), (42, 5374), (43, 5380), (50, 5458), (51, 5464), (52, 5467), (54, 5473),