

Pham 285578



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 285578 Report

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

Pham number 285578 has 63 members, 12 are drafts.

Phages represented in each track:

- Track 1 : ConceptII_66, Renaud18_40, Marco3_68, DD5_62, Ruotula_68, Fenn_67, Nerujay_66, Naira_66, Petruccio_64, Wee_40, Estave1_37
- Track 2 : Lockley_61
- Track 3 : Blarby_48, DeadP_40, Taj_39
- Track 4 : BronnyJames_86, Shaboozey_85
- Track 5 : MiaZeal_89, LittleE_89, Lucky2013_86, KashFlow_81, Ariel_88, Superphikiman_86, Squint_88, Courthouse_84, Porcelain_88
- Track 6 : Nibley_81
- Track 7 : EricMillard_86, Optimus_87, Beem_93, HokkenD_82, DmpstrDiver_93, Halley_94, Wanda_97, Klein_93, Xiaokay_82, Dove_78, Yeet_86, Kalah2_87, Minerva_92, JuicyJay_90, Constella_78, Schatzie_88, Bombitas_81, NihilNomen_94, BAKA_94, ThreeRngTarjay_90, Hughesyang_93, Zelink_90, Phoebus_95, Odette_91
- Track 8 : Gonephishing_77
- Track 9 : Hidrated_79
- Track 10 : Thibault_77
- Track 11 : Bagrid_92
- Track 12 : Omega_94
- Track 13 : Bobby_85, Marleymoo_75
- Track 14 : Nekros_87
- Track 15 : Hannaconda_78
- Track 16 : Dallas_94
- Track 17 : Rearden_83
- Track 18 : Pound_84

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

The start number called the most often in the published annotations is 11, it was called in 25 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BAKA_94, Beem_93, Bobby_85, Bombitas_81, Constella_78, Dallas_94, DmpstrDiver_93, Dove_78, EricMillard_86, Halley_94, Hidrated_79, HokkenD_82, Hughesyang_93, JuicyJay_90, Kalah2_87, Klein_93, Marleymoo_75, Minerva_92, NihilNomen_94, Odette_91, Optimus_87, Phoebus_95, Schatzie_88, Thibault_77,

ThreeRngTarjay_90, Wanda_97, Xiaokay_82, Yeet_86, Zelink_90,

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

- Bagrid_92,

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

- Ariel_88, Blarby_48, BronnyJames_86, ConceptII_66, Courthouse_84, DD5_62, DeadP_40, Estave1_37, Fenn_67, Gonephishing_77, Hannaconda_78, KashFlow_81, LittleE_89, Lockley_61, Lucky2013_86, Marco3_68, MiaZeal_89, Naira_66, Nekros_87, Nerujay_66, Nibley_81, Omega_94, Petruccio_64, Porcelain_88, Pound_84, Rearden_83, Renaud18_40, Ruotula_68, Shaboozey_85, Squint_88, Superphikiman_86, Taj_39, Wee_40,

Summary by start number:

Start 1:

- Found in 1 of 63 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nekros_87 (J),

Start 4:

- Found in 15 of 63 (23.8%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Lockley_61 (A1),

Start 8:

- Found in 1 of 63 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hannaconda_78 (J),

Start 10:

- Found in 1 of 63 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pound_84 (J),

Start 11:

- Found in 30 of 63 (47.6%) of genes in pham
- Manual Annotations of this start: 25 of 51
- Called 96.7% of time when present
- Phage (with cluster) where this start called: BAKA_94 (J), Beem_93 (J), Bobby_85 (J), Bombitas_81 (J), Constella_78 (J), Dallas_94 (J), DmpstrDiver_93 (J), Dove_78 (J), EricMillard_86 (J), Halley_94 (J), Hidrated_79 (J), HokkenD_82 (J), Hughesyang_93 (J), JuicyJay_90 (J), Kalah2_87 (J), Klein_93 (J), Marleymoo_75 (J), Minerva_92 (J), NihilNomen_94 (J), Odette_91 (J), Optimus_87 (J), Phoebus_95 (J), Schatzie_88 (J), Thibault_77 (J), ThreeRngTarjay_90 (J), Wanda_97 (J), Xiaokay_82 (J), Yeet_86 (J), Zelink_90 (J),

Start 12:

- Found in 32 of 63 (50.8%) of genes in pham

- Manual Annotations of this start: 23 of 51
- Called 78.1% of time when present
- Phage (with cluster) where this start called: Ariel_88 (J), Blarby_48 (F), ConceptII_66 (A1), Courthouse_84 (J), DD5_62 (A1), DeadP_40 (F1), Estave1_37 (F1), Fenn_67 (A1), Gonephishing_77 (J), KashFlow_81 (J), LittleE_89 (J), Lucky2013_86 (J), Marco3_68 (A1), MiaZeal_89 (J), Naira_66 (A1), Nerujay_66 (A1), Omega_94 (J), Petruccio_64 (A1), Porcelain_88 (J), Renaud18_40 (F4), Ruotula_68 (A1), Squint_88 (J), Superphikiman_86 (J), Taj_39 (F1), Wee_40 (F1),

Start 13:

- Found in 63 of 63 (100.0%) of genes in pham
- No Manual Annotations of this start.
- Called 6.3% of time when present
- Phage (with cluster) where this start called: Bagrid_92 (J), BronnyJames_86 (J), Rearden_83 (J), Shaboozey_85 (J),

Start 14:

- Found in 33 of 63 (52.4%) of genes in pham
- No Manual Annotations of this start.
- Called 3.0% of time when present
- Phage (with cluster) where this start called: Nibley_81 (J),

Summary by clusters:

There are 5 clusters represented in this pham: A1, F1, J, F4, F,

Info for manual annotations of cluster A1:

- Start number 4 was manually annotated 1 time for cluster A1.
- Start number 12 was manually annotated 8 times for cluster A1.

Info for manual annotations of cluster F1:

- Start number 12 was manually annotated 4 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 12 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 8 was manually annotated 1 time for cluster J.
- Start number 10 was manually annotated 1 time for cluster J.
- Start number 11 was manually annotated 25 times for cluster J.
- Start number 12 was manually annotated 10 times for cluster J.

Gene Information:

Gene: Ariel_88 Start: 52165, Stop: 52374, Start Num: 12

Candidate Starts for Ariel_88:

(Start: 12 @52165 has 23 MA's), (13, 52192), (14, 52195), (15, 52213), (18, 52258), (19, 52264), (20, 52288), (21, 52336),

Gene: BAKA_94 Start: 57719, Stop: 57925, Start Num: 11

Candidate Starts for BAKA_94:

(Start: 11 @57719 has 25 MA's), (13, 57746), (20, 57842), (21, 57890),

Gene: Bagrid_92 Start: 56613, Stop: 56792, Start Num: 13

Candidate Starts for Bagrid_92:

(Start: 11 @56586 has 25 MA's), (13, 56613), (20, 56709), (21, 56757),

Gene: Beem_93 Start: 57447, Stop: 57653, Start Num: 11

Candidate Starts for Beem_93:

(Start: 11 @57447 has 25 MA's), (13, 57474), (20, 57570), (21, 57618),

Gene: Blarby_48 Start: 31651, Stop: 31478, Start Num: 12

Candidate Starts for Blarby_48:

(Start: 4 @31702 has 1 MA's), (Start: 12 @31651 has 23 MA's), (13, 31624), (14, 31621), (15, 31603), (19, 31588), (20, 31564), (21, 31516),

Gene: Bobby_85 Start: 55770, Stop: 55976, Start Num: 11

Candidate Starts for Bobby_85:

(Start: 11 @55770 has 25 MA's), (13, 55797), (19, 55869), (20, 55893), (21, 55941),

Gene: Bombitas_81 Start: 54610, Stop: 54816, Start Num: 11

Candidate Starts for Bombitas_81:

(Start: 11 @54610 has 25 MA's), (13, 54637), (20, 54733), (21, 54781),

Gene: BronnyJames_86 Start: 52107, Stop: 52289, Start Num: 13

Candidate Starts for BronnyJames_86:

(Start: 12 @52080 has 23 MA's), (13, 52107), (14, 52110), (15, 52128), (17, 52170), (19, 52179), (20, 52203), (21, 52251),

Gene: ConceptII_66 Start: 43279, Stop: 43070, Start Num: 12

Candidate Starts for ConceptII_66:

(Start: 4 @43330 has 1 MA's), (Start: 12 @43279 has 23 MA's), (13, 43252), (14, 43249), (15, 43231), (16, 43195), (18, 43186), (19, 43180), (20, 43156), (21, 43108),

Gene: Constella_78 Start: 51584, Stop: 51790, Start Num: 11

Candidate Starts for Constella_78:

(Start: 11 @51584 has 25 MA's), (13, 51611), (20, 51707), (21, 51755),

Gene: Courthouse_84 Start: 51765, Stop: 51974, Start Num: 12

Candidate Starts for Courthouse_84:

(Start: 12 @51765 has 23 MA's), (13, 51792), (14, 51795), (15, 51813), (18, 51858), (19, 51864), (20, 51888), (21, 51936),

Gene: DD5_62 Start: 42832, Stop: 42623, Start Num: 12

Candidate Starts for DD5_62:

(Start: 4 @42883 has 1 MA's), (Start: 12 @42832 has 23 MA's), (13, 42805), (14, 42802), (15, 42784), (16, 42748), (18, 42739), (19, 42733), (20, 42709), (21, 42661),

Gene: Dallas_94 Start: 57455, Stop: 57661, Start Num: 11

Candidate Starts for Dallas_94:

(Start: 11 @57455 has 25 MA's), (13, 57482), (19, 57554), (20, 57578), (21, 57626),

Gene: DeadP_40 Start: 31348, Stop: 31175, Start Num: 12

Candidate Starts for DeadP_40:

(Start: 4 @31399 has 1 MA's), (Start: 12 @31348 has 23 MA's), (13, 31321), (14, 31318), (15, 31300), (19, 31285), (20, 31261), (21, 31213),

Gene: DmpstrDiver_93 Start: 56782, Stop: 56988, Start Num: 11

Candidate Starts for DmpstrDiver_93:

(Start: 11 @56782 has 25 MA's), (13, 56809), (20, 56905), (21, 56953),

Gene: Dove_78 Start: 52876, Stop: 53082, Start Num: 11

Candidate Starts for Dove_78:

(Start: 11 @52876 has 25 MA's), (13, 52903), (20, 52999), (21, 53047),

Gene: EricMillard_86 Start: 56514, Stop: 56720, Start Num: 11

Candidate Starts for EricMillard_86:

(Start: 11 @56514 has 25 MA's), (13, 56541), (20, 56637), (21, 56685),

Gene: Estave1_37 Start: 30651, Stop: 30442, Start Num: 12

Candidate Starts for Estave1_37:

(Start: 4 @30702 has 1 MA's), (Start: 12 @30651 has 23 MA's), (13, 30624), (14, 30621), (15, 30603), (16, 30567), (18, 30558), (19, 30552), (20, 30528), (21, 30480),

Gene: Fenn_67 Start: 43791, Stop: 43582, Start Num: 12

Candidate Starts for Fenn_67:

(Start: 4 @43842 has 1 MA's), (Start: 12 @43791 has 23 MA's), (13, 43764), (14, 43761), (15, 43743), (16, 43707), (18, 43698), (19, 43692), (20, 43668), (21, 43620),

Gene: Gonephishing_77 Start: 50718, Stop: 50927, Start Num: 12

Candidate Starts for Gonephishing_77:

(Start: 12 @50718 has 23 MA's), (13, 50745), (14, 50748), (15, 50766), (16, 50802), (18, 50811), (19, 50817), (20, 50841), (21, 50889),

Gene: Halley_94 Start: 57447, Stop: 57653, Start Num: 11

Candidate Starts for Halley_94:

(Start: 11 @57447 has 25 MA's), (13, 57474), (20, 57570), (21, 57618),

Gene: Hannaconda_78 Start: 50095, Stop: 50340, Start Num: 8

Candidate Starts for Hannaconda_78:

(5, 50080), (Start: 8 @50095 has 1 MA's), (Start: 12 @50131 has 23 MA's), (13, 50158), (14, 50161), (15, 50179), (18, 50224), (19, 50230), (20, 50254), (21, 50302),

Gene: Hidrated_79 Start: 55305, Stop: 55511, Start Num: 11

Candidate Starts for Hidrated_79:

(Start: 11 @55305 has 25 MA's), (13, 55332), (14, 55335), (15, 55353), (20, 55428), (21, 55476),

Gene: HokkenD_82 Start: 55716, Stop: 55922, Start Num: 11

Candidate Starts for HokkenD_82:

(Start: 11 @55716 has 25 MA's), (13, 55743), (20, 55839), (21, 55887),

Gene: Hughesyang_93 Start: 57405, Stop: 57611, Start Num: 11

Candidate Starts for Hughesyang_93:

(Start: 11 @57405 has 25 MA's), (13, 57432), (20, 57528), (21, 57576),

Gene: JuicyJay_90 Start: 58581, Stop: 58787, Start Num: 11

Candidate Starts for JuicyJay_90:

(Start: 11 @58581 has 25 MA's), (13, 58608), (20, 58704), (21, 58752),

Gene: Kalah2_87 Start: 56740, Stop: 56946, Start Num: 11

Candidate Starts for Kalah2_87:

(Start: 11 @56740 has 25 MA's), (13, 56767), (20, 56863), (21, 56911),

Gene: KashFlow_81 Start: 51686, Stop: 51895, Start Num: 12

Candidate Starts for KashFlow_81:

(Start: 12 @51686 has 23 MA's), (13, 51713), (14, 51716), (15, 51734), (18, 51779), (19, 51785), (20, 51809), (21, 51857),

Gene: Klein_93 Start: 56416, Stop: 56622, Start Num: 11

Candidate Starts for Klein_93:

(Start: 11 @56416 has 25 MA's), (13, 56443), (20, 56539), (21, 56587),

Gene: LittleE_89 Start: 55294, Stop: 55503, Start Num: 12

Candidate Starts for LittleE_89:

(Start: 12 @55294 has 23 MA's), (13, 55321), (14, 55324), (15, 55342), (18, 55387), (19, 55393), (20, 55417), (21, 55465),

Gene: Lockley_61 Start: 42045, Stop: 41785, Start Num: 4

Candidate Starts for Lockley_61:

(Start: 4 @42045 has 1 MA's), (Start: 12 @41994 has 23 MA's), (13, 41967), (14, 41964), (15, 41946), (16, 41910), (18, 41901), (19, 41895), (20, 41871), (21, 41823),

Gene: Lucky2013_86 Start: 52181, Stop: 52390, Start Num: 12

Candidate Starts for Lucky2013_86:

(Start: 12 @52181 has 23 MA's), (13, 52208), (14, 52211), (15, 52229), (18, 52274), (19, 52280), (20, 52304), (21, 52352),

Gene: Marco3_68 Start: 44421, Stop: 44212, Start Num: 12

Candidate Starts for Marco3_68:

(Start: 4 @44472 has 1 MA's), (Start: 12 @44421 has 23 MA's), (13, 44394), (14, 44391), (15, 44373), (16, 44337), (18, 44328), (19, 44322), (20, 44298), (21, 44250),

Gene: Marleymoo_75 Start: 53560, Stop: 53766, Start Num: 11

Candidate Starts for Marleymoo_75:

(Start: 11 @53560 has 25 MA's), (13, 53587), (19, 53659), (20, 53683), (21, 53731),

Gene: MiaZeal_89 Start: 52837, Stop: 53046, Start Num: 12

Candidate Starts for MiaZeal_89:

(Start: 12 @52837 has 23 MA's), (13, 52864), (14, 52867), (15, 52885), (18, 52930), (19, 52936), (20, 52960), (21, 53008),

Gene: Minerva_92 Start: 57364, Stop: 57570, Start Num: 11

Candidate Starts for Minerva_92:

(Start: 11 @57364 has 25 MA's), (13, 57391), (20, 57487), (21, 57535),

Gene: Naira_66 Start: 43847, Stop: 43638, Start Num: 12

Candidate Starts for Naira_66:

(Start: 4 @43898 has 1 MA's), (Start: 12 @43847 has 23 MA's), (13, 43820), (14, 43817), (15, 43799), (16, 43763), (18, 43754), (19, 43748), (20, 43724), (21, 43676),

Gene: Nekros_87 Start: 55167, Stop: 55469, Start Num: 1

Candidate Starts for Nekros_87:

(1, 55167), (2, 55191), (3, 55206), (Start: 12 @55260 has 23 MA's), (13, 55287), (14, 55290), (15, 55308), (18, 55353), (19, 55359), (20, 55383), (21, 55431),

Gene: Nerujay_66 Start: 43426, Stop: 43217, Start Num: 12

Candidate Starts for Nerujay_66:

(Start: 4 @43477 has 1 MA's), (Start: 12 @43426 has 23 MA's), (13, 43399), (14, 43396), (15, 43378), (16, 43342), (18, 43333), (19, 43327), (20, 43303), (21, 43255),

Gene: Nibley_81 Start: 51687, Stop: 51866, Start Num: 14

Candidate Starts for Nibley_81:

(Start: 12 @51657 has 23 MA's), (13, 51684), (14, 51687), (15, 51705), (17, 51747), (19, 51756), (20, 51780), (21, 51828),

Gene: NihilNomen_94 Start: 57534, Stop: 57740, Start Num: 11

Candidate Starts for NihilNomen_94:

(Start: 11 @57534 has 25 MA's), (13, 57561), (20, 57657), (21, 57705),

Gene: Odette_91 Start: 56576, Stop: 56782, Start Num: 11

Candidate Starts for Odette_91:

(Start: 11 @56576 has 25 MA's), (13, 56603), (20, 56699), (21, 56747),

Gene: Omega_94 Start: 57070, Stop: 57279, Start Num: 12

Candidate Starts for Omega_94:

(Start: 12 @57070 has 23 MA's), (13, 57097), (14, 57100), (15, 57118), (18, 57163), (19, 57169), (20, 57193), (21, 57241),

Gene: Optimus_87 Start: 56068, Stop: 56274, Start Num: 11

Candidate Starts for Optimus_87:

(Start: 11 @56068 has 25 MA's), (13, 56095), (20, 56191), (21, 56239),

Gene: Petruccio_64 Start: 41744, Stop: 41535, Start Num: 12

Candidate Starts for Petruccio_64:

(Start: 4 @41795 has 1 MA's), (Start: 12 @41744 has 23 MA's), (13, 41717), (14, 41714), (15, 41696), (16, 41660), (18, 41651), (19, 41645), (20, 41621), (21, 41573),

Gene: Phoebus_95 Start: 58716, Stop: 58922, Start Num: 11

Candidate Starts for Phoebus_95:

(Start: 11 @58716 has 25 MA's), (13, 58743), (20, 58839), (21, 58887),

Gene: Porcelain_88 Start: 52837, Stop: 53046, Start Num: 12

Candidate Starts for Porcelain_88:

(Start: 12 @52837 has 23 MA's), (13, 52864), (14, 52867), (15, 52885), (18, 52930), (19, 52936), (20, 52960), (21, 53008),

Gene: Pound_84 Start: 56736, Stop: 56951, Start Num: 10

Candidate Starts for Pound_84:

(6, 56700), (7, 56706), (9, 56724), (Start: 10 @56736 has 1 MA's), (13, 56772), (20, 56868), (21, 56916),

Gene: Rearden_83 Start: 52774, Stop: 52956, Start Num: 13

Candidate Starts for Rearden_83:

(Start: 12 @52747 has 23 MA's), (13, 52774), (14, 52777), (15, 52795), (18, 52840), (19, 52846), (20, 52870), (21, 52918),

Gene: Renaud18_40 Start: 31427, Stop: 31218, Start Num: 12

Candidate Starts for Renaud18_40:

(Start: 4 @31478 has 1 MA's), (Start: 12 @31427 has 23 MA's), (13, 31400), (14, 31397), (15, 31379), (16, 31343), (18, 31334), (19, 31328), (20, 31304), (21, 31256),

Gene: Ruotula_68 Start: 44381, Stop: 44172, Start Num: 12

Candidate Starts for Ruotula_68:

(Start: 4 @44432 has 1 MA's), (Start: 12 @44381 has 23 MA's), (13, 44354), (14, 44351), (15, 44333), (16, 44297), (18, 44288), (19, 44282), (20, 44258), (21, 44210),

Gene: Schatzie_88 Start: 56323, Stop: 56529, Start Num: 11

Candidate Starts for Schatzie_88:

(Start: 11 @56323 has 25 MA's), (13, 56350), (20, 56446), (21, 56494),

Gene: Shaboozey_85 Start: 52128, Stop: 52310, Start Num: 13

Candidate Starts for Shaboozey_85:

(Start: 12 @52101 has 23 MA's), (13, 52128), (14, 52131), (15, 52149), (17, 52191), (19, 52200), (20, 52224), (21, 52272),

Gene: Squint_88 Start: 52956, Stop: 53165, Start Num: 12

Candidate Starts for Squint_88:

(Start: 12 @52956 has 23 MA's), (13, 52983), (14, 52986), (15, 53004), (18, 53049), (19, 53055), (20, 53079), (21, 53127),

Gene: Superphikiman_86 Start: 52047, Stop: 52256, Start Num: 12

Candidate Starts for Superphikiman_86:

(Start: 12 @52047 has 23 MA's), (13, 52074), (14, 52077), (15, 52095), (18, 52140), (19, 52146), (20, 52170), (21, 52218),

Gene: Taj_39 Start: 31350, Stop: 31177, Start Num: 12

Candidate Starts for Taj_39:

(Start: 4 @31401 has 1 MA's), (Start: 12 @31350 has 23 MA's), (13, 31323), (14, 31320), (15, 31302), (19, 31287), (20, 31263), (21, 31215),

Gene: Thibault_77 Start: 52200, Stop: 52406, Start Num: 11

Candidate Starts for Thibault_77:

(Start: 11 @52200 has 25 MA's), (13, 52227), (18, 52293), (20, 52323), (21, 52371),

Gene: ThreeRngTarjay_90 Start: 57608, Stop: 57814, Start Num: 11

Candidate Starts for ThreeRngTarjay_90:

(Start: 11 @57608 has 25 MA's), (13, 57635), (20, 57731), (21, 57779),

Gene: Wanda_97 Start: 56725, Stop: 56931, Start Num: 11

Candidate Starts for Wanda_97:

(Start: 11 @56725 has 25 MA's), (13, 56752), (20, 56848), (21, 56896),

Gene: Wee_40 Start: 31924, Stop: 31715, Start Num: 12

Candidate Starts for Wee_40:

(Start: 4 @31975 has 1 MA's), (Start: 12 @31924 has 23 MA's), (13, 31897), (14, 31894), (15, 31876), (16, 31840), (18, 31831), (19, 31825), (20, 31801), (21, 31753),

Gene: Xiaokay_82 Start: 53445, Stop: 53651, Start Num: 11

Candidate Starts for Xiaokay_82:

(Start: 11 @53445 has 25 MA's), (13, 53472), (20, 53568), (21, 53616),

Gene: Yeet_86 Start: 55825, Stop: 56031, Start Num: 11

Candidate Starts for Yeet_86:

(Start: 11 @55825 has 25 MA's), (13, 55852), (20, 55948), (21, 55996),

Gene: Zelink_90 Start: 57920, Stop: 58126, Start Num: 11

Candidate Starts for Zelink_90:

(Start: 11 @57920 has 25 MA's), (13, 57947), (20, 58043), (21, 58091),