Example of Good notes. See definitions of abbreviations on pg. 104

SSC: Start: 2435 Stop: 2650 (FWD). CP: Agrees with both Glimmer and GeneMark

predictions. SD: 310, best score. SCS: ORF includes all coding potential shown on

GeneMark-Smeg output. LO: 213 bp; longest possible ORF. Gap: 84 bp gap with

Previous Gene. BLAST: gp3 of Oline; Oline aa 1 aligns with query aa 1. ST: Not

informative; F (Function): NKF (No Known Function).

Feature 67

SCC: Start: 41591 Stop: 41343 (BWD). CP: Agrees with both Glimmer and GeneMark

predictions. SD: -4.407 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 249 bp; not longest possible ORF of 489 bp. Gap: 13 bp overlap with Feature 68. BLAST: gp69 [Mycobacterium phage Gladiator]; Gladiator aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 68

SCC: Start: 42414 Stop: 41578 (BWD). CP: Extended from original Glimmer and GeneMark call at 42381. SD: -4.903 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 837 bp; longest possible ORF. Gap: 3 bp overlap with Feature 69. BLAST: gp70 [Mycobacterium phage Gladiator]; Gladiator aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 69

SCC: Start: 42554 Stop: 42411 (BWD). CP: Agrees with Glimmer original call; GeneMark did not call. SD: -6.803 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 144 bp; not longest possible ORF of 168 bp. Gap: 160 bp gap with Feature 70. BLAST: hypothetical protein PBI\_ISIPHIWO\_71 [Mycobacterium phage Isiphiwo]; Isiphiwo aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 70

SCC: Start: 43121 Stop: 42714 (BWD). CP: Extended from original Glimmer and GeneMark call at 43091. SD: -4.140 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 408 bp; not longest possible ORF of 630 bp. Gap: 20 bp gap with Feature 71. BLAST: gp73 [Mycobacterium phage DaVinci]; DaVinci aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 71

SCC: Start: 43968 Stop: 43141 (BWD). CP: Agrees with both Glimmer and GeneMark

predictions. SD: -3.493 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 828 bp; longest possible ORF. Gap: 3 bp overlap with Feature 72 BLAST: exonuclease/helicase [Mycobacterium phage Isiphiwo]; Isiphiwo aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 72

SCC: Start: 44366 Stop: 43965 (BWD). CP: Extended beyond both Glimmer and GeneMark predictions at 44255 and 44351 respectively. SD: -3.702 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 402 bp; longest possible ORF. Gap: 33 bp overlap with Feature 72.5. BLAST: hypothetical protein PBI\_MCFLY\_78 [Mycobacterium phage McFly]; McFly aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 72.5

SCC: Start: 44488 Stop: 44333 (BWD). CP: Added Feature not originally predicted by Glimmer or GeneMark. SD: -5.318 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 156 bp; not longest possible ORF of 195 bp. Gap: 3 bp overlap with Feature 73 BLAST: hypothetical protein PBI\_VOHMINGAZI\_85 [Mycobacterium phage VohminGhazi]; VohminGhazi aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 73

SCC: Start: 44643 Stop: 44485 (BWD). CP: Agrees with both Glimmer and GeneMark

predictions. SD: -4.701 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 159 bp; not longest possible ORF of 360 bp. Gap: 3 bp gap with Feature 74. BLAST: hypothetical protein CLOUDWANG3\_88 [Mycobacterium phage CloudWang3]; CloudWang3 aa1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 74

SCC: Start: 44888 Stop: 44646 (BWD). CP: Extended beyond both Glimmer and GeneMark predictions at 44864. SD: -4.739 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 243 bp; not longest possible ORF of 492 bp. Gap: 3 bp overlap with Feature 75. BLAST: gp90 [Mycobacterium phage Blue7]; Blue7 aa 9 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 75

SCC: Start: 45196 Stop: 44885 (BWD). CP: Agrees with both Glimmer and GeneMark

predictions. SD: -6.399 SCS: ORF does not include all coding potential shown on GeneMark-Smeg output. LO: 312 bp; not longest possible ORF of 651 bp. Gap: 161 bp gap with Feature 76. BLAST: gp86 [Mycobacterium phage EricB]; EricB aa 1 aligns with JewelBug aa 1. ST: Pending. F (Function): Pending.

Feature 76

SCC: Start: 45884 Stop: 45357 (BWD). CP: Shortened from both Glimmer and GeneMark predictions at 45887. SD: -4.417 SCS: ORF includes all coding potential shown on GeneMark-Smeg output. LO: 528 bp; not longest possible ORF of 666 bp. Gap: 3 bp overlap with Feature 77. BLAST: DNA methylase [Mycobacterium phage VohminGhazi]; VohminGahzi aa 1 aligns with JewelBug aa 6. ST: Pending. F (Function): Pending.

Feature 77

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 78

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 79

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 80

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 81

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 82

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 83

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 84

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 85

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 86

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 87

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 88

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.

Feature 90

SCC: Start: Stop: (BWD) CP: SD: SCS: LO: Gap: BLAST: ST: Pending. F (Function): Pending.