- 1 -

piece 1, NC_000913, aspS_yecD-, config: linear, direction: -, begin: 1948885, end: 1948527
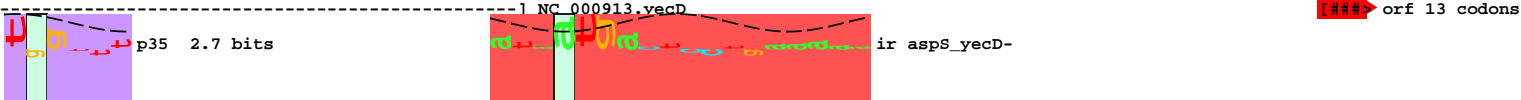
```
          *       *1948880  *       *1948870  *       *1948860  *       *1948850  *       *1948840  *       *1948830  *       *1948820  *       *1948810  *
5' cgcagtggttttagcattaagttcaagcataatgactcctgaaaaaacaaaatcgtgcctcacaccttaatgcgattagcc 3'
    -  ala - val - val - leu - ala - leu - ser - ser - ser - ile - met - thr - pro - glu - lys - thr - lys -   -   - fMet - pro - his - thr - leu - met - arg - leu - ala -   -   -
    -  gln - trp - phe -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
... ------------------------------------------------l NC_000913.yecD                                                            [###> orf 13 codons
```

p35 2.7 bits
ir aspS_yecD-
sd
{ ------- } sd-(5)-ir 1948854 Gap 5.4 bits
| ------- | sd-ir 1948854 aspS_yecD- total 5.9 bits
p10 5.5 bits
{ ------------------------------- } p35-(22)-p10 1948857 Gap 2.3 bits
| ------------------------------- | p35-p10 1948857 total 5.9 bits

```
          *1948800  *       *1948790  *       *1948780  *       *1948770  *       *1948760  *       *1948750  *       *1948740  *       *1948730  *
5' gatggcgaacgacaaattttgttaattttttatgagttcgggcaacacctttatagcaaactggcgtagagtctgatttca 3'
    - asp - gly - gly - thr - thr - asn - phe - val - asn - phe - tyr - glu - phe - gly - gln - his - leu - tyr - ser - lys - leu - ala -   -   -   -
    - fMet - ala - glu - arg - gln - ile - leu - leu - ile - phe - met - ser - ser - gly - asn - thr - phe - ile - ala - asn - trp - arg - arg - val -   -   -
          *1948720  *       *1948710  *       *1948700  *       *1948690  *       *1948680  *       *1948670  *       *1948660  *       *1948650  *
5' ggcccgatataaagtggtaacgaggcgttccagcgcgggccaggctcttacggtgcggcagaatttccagtataatagccg 3'
    -   -   -   -   -   - fMet - val - thr - arg - arg - ser - ser - ala - gly - gln - ala - leu - thr - val - arg - gln - asn - phe - gln - tyr - asn - ser - arg -
```
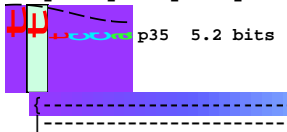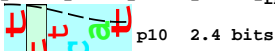
p35 5.2 bits
{ --------------------------- ... p35-(23)-p10 1948636 Gap
| --------------------------- ... p35-p10 1948636 total 6.2

```
          *1948640  *       *1948630  *       *1948620  *       *1948610  *       *1948600  *       *1948590  *       *1948580  *       *1948570  *
5' cctttttttcattcagttgtgacatacagctaacgctgcgacttggtcacctgcgcagcaggggcatccgccggcagctaa 3'
    -   -   -   -   -   - fMet -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
    - leu - phe - ser - phe - ser - cys - asp - ile - gln - leu - thr - leu - arg - leu - gly - his - leu - arg - ser - arg - gly - his - pro - pro - ala - ala - lys -
    -   -   -   -   - fMet - thr - tyr - ser -   -   -   - fMet - val - thr - cys - ala - ala - gly - gly - ile - arg - arg - gln - leu - ser -
```
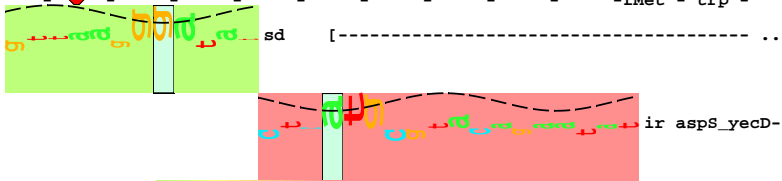
p10 2.4 bits
... sd
... ------------ } p35-(23)-p10 1948636 Gap 1.4 bits
... ------------ | p35-p10 1948636 total 6.2 bits

```
          *1948560  *       *1948550  *       *1948540  *       *1948530
5' gttaaggatatctcatgcgtacagaatattgtgg 3'
    -   -   -   -   -   - fMet - arg - thr - glu - tyr - cys -
    - leu - arg - asp - ile - ser - cys - val - gln - asn - ile - val -
    -   -   -   -   -   -   -   - fMet - trp -
... [-------------------------------- ... NC_000913.aspS
```

sd
ir aspS_yecD-
{ ------- } sd-(8)-ir 1948546 Gap 2.4 bits
| ------- | sd-ir 1948546 aspS_yecD- total 10.4 bits