piece 1, NC_000913, glnA_typA-, config: linear, direction: -, begin: 4056459, end: 4056038

```
           *       *4056450  *       *4056440  *       *4056430  *       *4056420  *       *4056410  *       *4056400  *       *4056390  *       *4056380
5' g a t g g c g a t a t t a c g c a a t t t t t c g a t c a c a a c t t t g c c t c a g g c a t t a g a a a t a g c g c g t t a t t g t a c a c g g a t t a a t c g 3'
   - asp - gly - asp - ile - thr - gln - phe - phe - asp - his - asn - phe - ala - ser - gly - ile - arg - asn - ser - ala - leu - leu - tyr - thr - asp -
   - met - ala - ile - leu - arg - asn - phe - ser - ile - thr - thr - leu - pro - gln - ala - leu - glu - ile - ala - arg - tyr - cys - thr - arg - ile -
   - trp - arg - tyr - tyr - ala - ile - phe - arg - ser - gln - leu - cys - leu - arg - his - - - - - - - - - -
```

```
           *       *4056370  *       *4056360  *       *4056350  *       *4056340  *       *4056330  *       *4056320  *       *4056310  *       *4056300
5' c a c t a c a a a a c a g g a t c a c a a a c a t c c t c c g c a a a c a a g t a t t g c a g a g t c c c t t g t g a t c g c t t t c a c g g a g c a t a a a a 3'
   - thr - thr - lys - gln - asp - his - lys - his - pro - pro - gln - thr - ser - ile - ala - glu - ser - leu - cys - asp - arg - phe - his - gly - ala -
                                                          -fMet - gln - ser - pro - phe - val - ile - ala - phe - thr - glu - his - lys - lys -
```
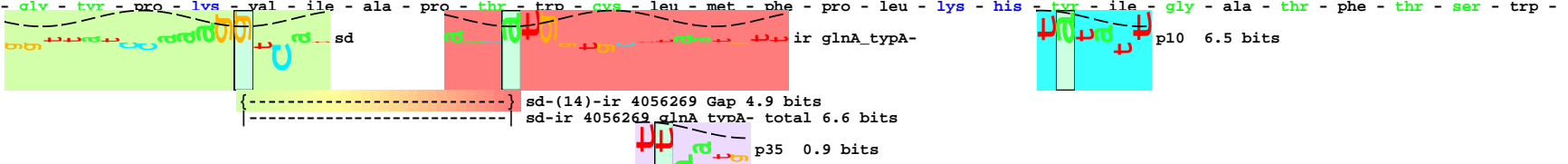
```
           *       *4056290  *       *4056280  *       *4056270  *       *4056260  *       *4056250  *       *4056240  *       *4056230  *       *4056220
5' a g g g t t a t c c a a g g t c a t t g c a c c a a c a t g g t g c t t a a t g t t t c c a t t g a a g c a c t a t t g g t g c a c a t t c c a c a t c g t 3'
                                 -fMet - his - gln - his - gly - ala - - - - - - - - - -fMet - val - gln - his - ser - his - arg -
   - gly - tyr - pro - lys - val - ile - ala - pro - thr - trp - cys - leu - met - phe - pro - leu - lys - his - tyr - ile - gly - ala - thr - phe - thr - ser - trp -
```

sd

ir glnA_typA-

p10   6.5 bits

{- - - - - - - - - - - - - - - -} sd-(14)-ir 4056269 Gap 4.9 bits
|- - - - - - - - - - - - - - - -| sd-ir 4056269 glnA_typA- total 6.6 bits

p35   0.9 bits

{- - - - - - - - - - - - - - - - - - - -} p35-(21)-p10 4056240 Gap 3.3 bits
|- - - - - - - - - - - - - - - - - - - -| p35-p10 4056240 total 4.1 bits

```
           *       *4056210  *       *4056200  *       *4056190  *       *4056180  *       *4056170  *       *4056160  *       *4056150  *       *4056140
5' g g t g c a g c c c t t t t g c a c g a t g g t g c g c a t g a t a a c g c c t t t t a g g g c a a t t a a a a g t t g c a c a g a t t c g c t t a t c 3'
   - gly - ala - ala - leu - leu - his - asp - gly - ala - his - asp - asn - ala - phe - - - - - - - - - - -
   - val - gln - pro - phe - cys - thr - met - val - arg - met - ile - thr - pro - phe - arg - gly - asn - leu - lys - val - gly - thr - asp - phe - ala - leu - ser -
   - cys - ser - pro - phe - ala - arg - trp - cys - ala - - - - - - -fMet - ala - gln - ile - ser - leu - tyr - leu -
```

p35   5.6 bits

p10   0.3 bits

{- -} p35-(23)-p10 4056141 Gap 1.4 bits
|- -| p35-p10 4056141 total 4.4 bits

... p10

{- -} p35-(26)-p10 4056138 Gap 3.7 bits
|- -| p35-p10 4056138 total 6.3 bits

... p35

{- - - - - - - ... p35-(24)-p10 4056115 Gap
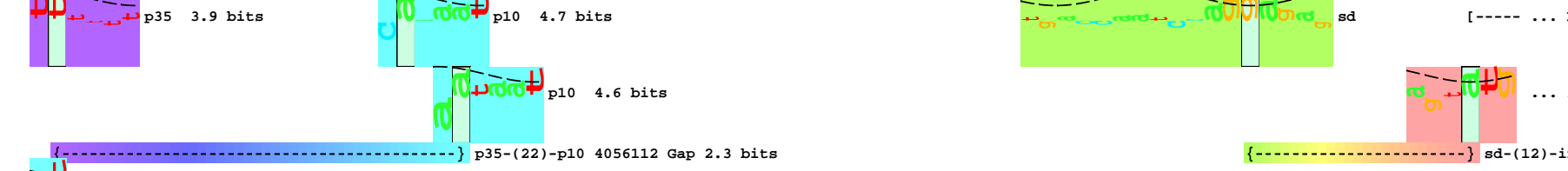|- - - - - - - ... p35-p10 4056115 total 4.2

```
   *       *4056130  *       *4056120  *       *4056110  *       *4056100  *       *4056090  *       *4056080  *       *4056070  *       *4056060  *
5' t t t t t t a c g g c g a c a c g g c c a a a a t a a t t g c a g a t t t c g t t a c c a c g a c g a c g a c c a t g a c c a a t c c a g g a g a g t t a a a g t a t g 3'
   - phe - leu - arg - arg - his - gly - gln - asn - asn - cys - arg - phe - arg - tyr - his - asp - asp - his - asp - gln - ser - arg - arg - val - lys - val - cys -
                    -fMet - gln - ile - ser - leu - pro - arg - arg - pro - - - - - - - - - - - - - - - - -fMet -
   - phe - tyr - gly - asp - thr - ala - lys - ile - ile - ala - asp - phe - val - thr - thr - thr - thr - met - thr - asn - pro - gly - glu - leu - lys - tyr - val -
```

p35   3.9 bits

p10   4.7 bits

sd

[----- ... NC_000913.glnA

p10   4.6 bits

... ir

{- - - - - - - - - - - - - - - - - - -} p35-(22)-p10 4056112 Gap 2.3 bits

{- - - - - - - - - - - - - -} sd-(12)-ir 4056057 Gap 4.0 bits

... p10   4.5 bits

|- - - - - - - - - - - - - - - - - -| sd-ir 4056057 glnA_typA- total 9.0

```
        |-------------------------------| p35-p10 4056112 total 6.2 bits

  ...  ↵p35  1.9 bits

  ...  -------------------------------} p35-(24)-p10 4056115 Gap 2.4 bits
  ...  -------------------------------| p35-p10 4056115 total 4.2 bits

         *4056050  *      *4056040
  5'  t c c g c t g a a c a c g t a c t 3'
      - ser - ala - glu - his - val -
        - pro - leu - asn - thr - tyr -
          - arg -  ●   -    -    -    -
  ...  ---------------------------------- ... NC_000913.glnA

  ...  ↵                       ir glnA_typA-


                        [#] ... orf
```