$$\frac{1(34)[35]^2\langle 56\rangle}{\langle 1|2+4|3]\langle 2|1+4|3]\langle 3|5+6|3]} +$$

$$\frac{1[35]\langle 46\rangle}{\langle 1|2+4|3]\langle 2|1+4|3]} +$$

$$(123456 \to -\overline{432165})$$