For Log:

$$\left(f'(x) - \frac{1}{x} \right) \equiv \epsilon$$

$$f(x) = (x-1)\,\eta(x)$$

$$f'(x) = \eta(x) + (x-1)\,\eta'(x)$$

$$\delta\left[\epsilon^2\right] = 2\left(\eta(x) + (x-1)\,\eta'(x) - \frac{1}{x}\right)\left(\delta\eta(x) + (x-1)\,\delta\eta'(x)\right)$$

$$\delta\left[\epsilon^2\right] = 2\left[O1(x) + (x-1)\,OD1(x) - \frac{1}{x}\right]\left[\delta O1(x) + (x-1)\,\delta OD1(x)\right]$$

$$DO1(x) = 2\left[O1(x) + (x-1)\,OD1(x) - \frac{1}{x}\right]$$

$$DOD1(x) = 2(x-1)\left[O1(x) + (x-1)\,OD1(x) - \frac{1}{x}\right]$$