$$\begin{pmatrix} 1, & 0, & a_1, & a_2 \\ 0, & 1, & a_3, & a_4 \\ 0, & 0, & a_5, & a_7 \\ 0, & 0, & a_8, & a_9 \end{pmatrix}^{-1} = \begin{pmatrix} 1, & 0, & -\frac{a_1a_9-a_2a_8}{\Delta}, & \frac{a_1a_7-a_2a_5}{\Delta} \\ 0, & 1, & -\frac{a_3a_9-a_4a_8}{\Delta}, & \frac{a_3a_7-a_4a_5}{\Delta} \\ 0, & 0, & \frac{a_9}{\Delta}, & -\frac{a_7}{\Delta} \\ 0, & 0, & -\frac{a_8}{\Delta}, & \frac{a_5}{\Delta} \end{pmatrix}$$

$$\Rightarrow \iota(x) = \left\langle \begin{pmatrix} 1, & 0, & *, & 0 & 0 \\ 0, & 1, & *, & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix} \right\rangle \longleftrightarrow \begin{pmatrix} * \\ * \\ 0 \\ 0 \end{pmatrix} \in \mathbb{C}^1$$

$$\iota(x') = \left\langle \begin{pmatrix} 1 & 0 & * & 0 & 0 \\ 0 & 1 & * & 0 & 0 \\ 0 & 0 & * & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix} \right\rangle \longleftrightarrow \begin{pmatrix} * \\ * \\ * \\ 0 \end{pmatrix} \in \mathbb{C}^{4(5-4)}.$$

We have to look closely at $T_{\iota(x)}\sigma_{1,1}(V)$.
Let Λ be an element near $\iota(x)$ in $\sigma_{1,1}(V)$.

$$\iota(x) \longleftrightarrow \begin{pmatrix} * \\ * \\ 0 \\ 0 \end{pmatrix} \doteq \begin{pmatrix} a \\ b \\ 0 \\ 0 \end{pmatrix} \Rightarrow \begin{pmatrix} a' \\ b' \\ c \\ d \end{pmatrix} = \Lambda$$

as a unique representation.