In general, we can compute the canonical bundle K_V of a smooth analytic hypersurface V in a manifold M in terms of K_M as follows. We have an exact sequence of vector bundles on V

$$0 \longrightarrow N_V^* \longrightarrow T_M^{*\prime}|V \longrightarrow T_V^{*\prime} \longrightarrow 0.$$

$\ulcorner$ $$0 \longrightarrow T'V \longrightarrow T'M|V \longrightarrow \frac{T'M|V}{T'V} /\!/ N_V \longrightarrow 0$$

Take Hom functor

$$0 \longrightarrow \underset{N_V^*}{\underset{\parallel}{\mathrm{Hom}(N_V, \mathbb{C})}} \longrightarrow \underset{T_M^{*\prime}|V}{\underset{\parallel}{\mathrm{Hom}(T'M|_V, \mathbb{C})}} \longrightarrow \underset{T_V^{*\prime}}{\underset{\parallel}{\mathrm{Hom}(T'V, \mathbb{C})}} \to 0$$

$\lrcorner$

By simple linear algebra, $\nearrow$ If $g_{\alpha\beta}$ transition fct of $T'M|_V$ then $g_{\alpha\beta} = \left(\begin{array}{c|c} h_{\alpha\beta} & * \\ \hline 0 & j_{\alpha\beta} \end{array}\right)$ $j_{\alpha\beta}$ transition fct for $\frac{T'M|_V}{T'V}$, $h_{\alpha\beta}$ for $T'V$

$$(\Lambda^n T_M^{*\prime})|_V \cong \Lambda^{n-1} T_V^{*\prime} \otimes N_V^*,$$

$$\Rightarrow \Lambda^n {}^t g_{\alpha\beta}^{-1} = \det({}^t g_{\alpha\beta}^{-1}) = \det({}^t h_{\alpha\beta}^{-1}) \cdot \det({}^t j_{\alpha\beta}^{-1})$$

$\ulcorner$ $T_M^{*\prime}|V \cong T_V^{*\prime} \oplus N_V^*$ $\quad C^\infty$ isomorphic (not holomorphically).

$$\Lambda^n(T_M^{*\prime}|V) \cong \Lambda^n(T_V^{*\prime} \oplus N_V^*) = \bigoplus_{k=0}^{n} \Lambda^k T_V^{*\prime} \otimes \Lambda^{n-k} N_V^*$$

Since $\Lambda^{n-k} N_V^* = 0$ if $n-k \geq 2$, and $\Lambda^n T_V^* = 0$ ($\because$ $\Lambda^n \mathbb{C}^{n-1} = 0$),

$$\underset{(\Lambda^n T_M^{*\prime})|_V}{\underset{\parallel}{\Lambda^n(T_M^{*\prime}|V)}} \cong \Lambda^{n-1} T_V^{*\prime} \otimes N_V^*.$$

$\lrcorner$

In other words, $K_M|V = K_V \otimes N_V^*$.
Combining this with the adjunction formula I above, we have the

Adjunction Formula II. $(K_M \otimes [V])|_V = K_V$.

since $K_M|V = K_V \otimes N_V^* = K_V \otimes [-V]|V$, $\quad K_M|V \otimes [V]|_V = K_V \otimes N_V^* \otimes [V]|_V$