Inference at $*$ 1 1 1
 of proof for Lemma choicef_wf:

1. xm : $\forall P{:}\mathbb{P}.\ P \vee (\neg P)$
2. T : Type
3. P : $T \rightarrow \mathbb{P}$
4. $\exists a{:}T.\ P(a)$
5. y : $\neg\{y{:}T|\ P(y)\}$
6. $xm(\{y{:}T|\ P(y)\}\ ) = (\text{inr } y\ )$

$\vdash$"???" $\in T$
 by ((D 5)
 CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 1000:n
 )) (first_tok :t) inil_term)))·

 1:

 5. y : $\{y{:}T|\ P(y)\} \rightarrow$False
 6. $xm(\{y{:}T|\ P(y)\}\ ) = (\text{inr } y\ )$
 $\vdash \{y{:}T|\ P(y)\}$

 .