

## ***Union Carbide Corp. v. Commissioner, 75 T. C. 220 (1980)***

Solvent extraction can be considered a mining process for depletion purposes when it is substantially equivalent to precipitation or necessary to other mining processes.

### **Summary**

Union Carbide Corp. challenged the IRS's disallowance of percentage depletion for its use of solvent extraction in processing vanadium and tungsten ores. The Tax Court held that solvent extraction was a mining process under Section 613(c)(4)(D) because it was substantially equivalent to precipitation and necessary to other mining processes. The court also found that subsequent processes like precipitation and crystallization were mining processes, and that the drying process was necessary to extraction. Additionally, the court upheld Union Carbide's computation of its foreign tax credit based on the principle of collateral estoppel, following a prior decision in a similar case.

### **Facts**

Union Carbide Corp. processed low-grade ores of vanadium and tungsten at its plants in Rifle, Colorado; Hot Springs, Arkansas; and Bishop, California. The company used solvent extraction to concentrate and separate these minerals from impurities. At the Rifle plant, vanadium was extracted through a series of steps including crushing, grinding, salt roasting, water leaching, pH adjustment, solvent extraction, precipitation, and drying. Similar processes were used at the Hot Springs and Bishop plants for vanadium and tungsten, respectively. The IRS disallowed depletion deductions for the solvent extraction process, asserting it was not a mining process. Union Carbide also included 34 subsidiaries in its consolidated tax return, including two Western Hemisphere Trade Corporations (WHTCs), and the IRS challenged its computation of the foreign tax credit.

### **Procedural History**

Union Carbide filed a petition with the U. S. Tax Court challenging the IRS's deficiency determination for 1971. The IRS amended its answer to include a challenge to Union Carbide's foreign tax credit computation. During the pendency of this case, the Court of Claims invalidated a relevant IRS regulation in a separate case involving Union Carbide for the taxable year 1967. The Tax Court ultimately ruled in favor of Union Carbide on both the depletion and foreign tax credit issues.

### **Issue(s)**

1. Whether the solvent extraction process used by Union Carbide in processing vanadium and tungsten constitutes a mining process under Section 613(c)(4)(D) and Section 613(c)(5)?
2. Whether the processes subsequent to solvent extraction, including precipitation, crystallization, and drying, are mining processes?

3. Whether Union Carbide's computation of its foreign tax credit is correct under the principle of collateral estoppel?

### **Holding**

1. Yes, because solvent extraction is substantially equivalent to precipitation and necessary to other mining processes, making it a mining process under Section 613(c)(4)(D) and Section 613(c)(5).
2. Yes, because precipitation and crystallization are specified mining processes under Section 613(c)(4)(D), and drying is necessary to the extraction process.
3. Yes, because the Court of Claims' prior decision on the validity of the IRS regulation for the 1967 tax year collaterally estops the IRS from challenging Union Carbide's computation for the 1971 tax year.

### **Court's Reasoning**

The court analyzed whether solvent extraction was a mining process by considering if it was substantially equivalent to precipitation or necessary to other mining processes. The court found that solvent extraction shared similar purposes and functions with precipitation, including chemical processing, reagent use, liquid solution application, impurity removal, and concentration. The court rejected the IRS's arguments that solvent extraction was a refining process due to its use of organic compounds and the nature of its end product. The court also noted that solvent extraction was necessary for the overall mining process, as it facilitated the removal of contaminants introduced during leaching. The subsequent processes of precipitation, crystallization, and drying were deemed mining processes due to their specification in the statute and their necessity to the extraction process. The court applied collateral estoppel to the foreign tax credit issue, citing a prior Court of Claims decision invalidating an IRS regulation that the IRS sought to apply in this case.

### **Practical Implications**

This decision clarifies that solvent extraction can be considered a mining process for depletion purposes if it serves a function similar to specified mining processes or is necessary to those processes. This ruling may encourage mining companies to use solvent extraction in their operations, knowing it can qualify for depletion deductions. The decision also affects how similar cases involving solvent extraction are analyzed, emphasizing the importance of the process's function and necessity over its chemical nature. For legal practice, attorneys must carefully assess the role of each processing step in mining operations to determine its eligibility for depletion. The upholding of Union Carbide's foreign tax credit computation based on collateral estoppel reinforces the importance of prior judicial decisions in subsequent tax disputes. Later cases, such as *Ranchers Exploration & Development Corp. v. United States*, have applied this ruling to similar solvent extraction processes in mining.