

[54] SULFUR MINE BLEEDWATER REUSE SYSTEM

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[58] Field of Search **299/4, 6**

[56]

References Cited

U.S. PATENT DOCUMENTS

1,615,050	1/1927	Stewart	299/6
1,764,538	6/1930	Stewart	299/4
2,137,619	11/1938	Lee	299/6
2,896,932	7/1959	Marquis	299/4 X

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[57] **ABSTRACT**

A novel system is disclosed for utilizing, in the mining of subterranean sulfur by the Frasch process, the heat of water that has accumulated underground above at least a portion of the subterranean sulfur deposit from previous mining operations wherein the underground water is brought to the surface, mixed with fresh heated water, and returned underground to melt the subterranean sulfur via a return pipeline which is separate and distinct from the pipeline through which the molten sulfur is brought to the surface. In one embodiment the return pipeline is in the same well casing as the sulfur pipeline, but displaced laterally from it. In a second embodiment, the return pipeline extends through a separate well casing.

17 Claims, 6 Drawing Figures

