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Declarations under Rule 4.17:

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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(54) **Title:** PROCESS, METHOD, AND SYSTEM FOR REMOVING HEAVY METALS FROM FLUIDS

(57) **Abstract:** Trace amount levels of heavy metals such as mercury in crude oil are reduced by contacting the crude oil with a sufficient amount of a reducing agent to convert at least a portion of the non-volatile mercury into a volatile form of mercury, which can be subsequently removed by any of stripping, scrubbing, adsorption, and combinations thereof. In one embodiment, at least 50% of the mercury is removed. In another embodiment, the removal rate is at least 99%. In one embodiment, the reducing agent is selected from sulfur compounds containing at least one sulfur atom having an oxidation state less than +6; ferrous compounds; stannous compounds; oxalates; cuprous compounds; organic acids which decompose to form CO₂ and / or H₂ upon heating; hydroxylamine compounds; hydrazine compounds; sodium borohydride; diisobutylaluminium hydride; thiourea; transition metal halides; and mixtures thereof.

