Mine Water and the Environment (2020) 39:603–617

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**TECHNICAL COMMUNICATION**



**In‑lake Neutralization of East German Lignite Pit Lakes: Technical History and New Approaches from LMBV**

**Friedrich‑Carl Benthaus1 · Oliver Totsche1 · Ludwig Luckner2**

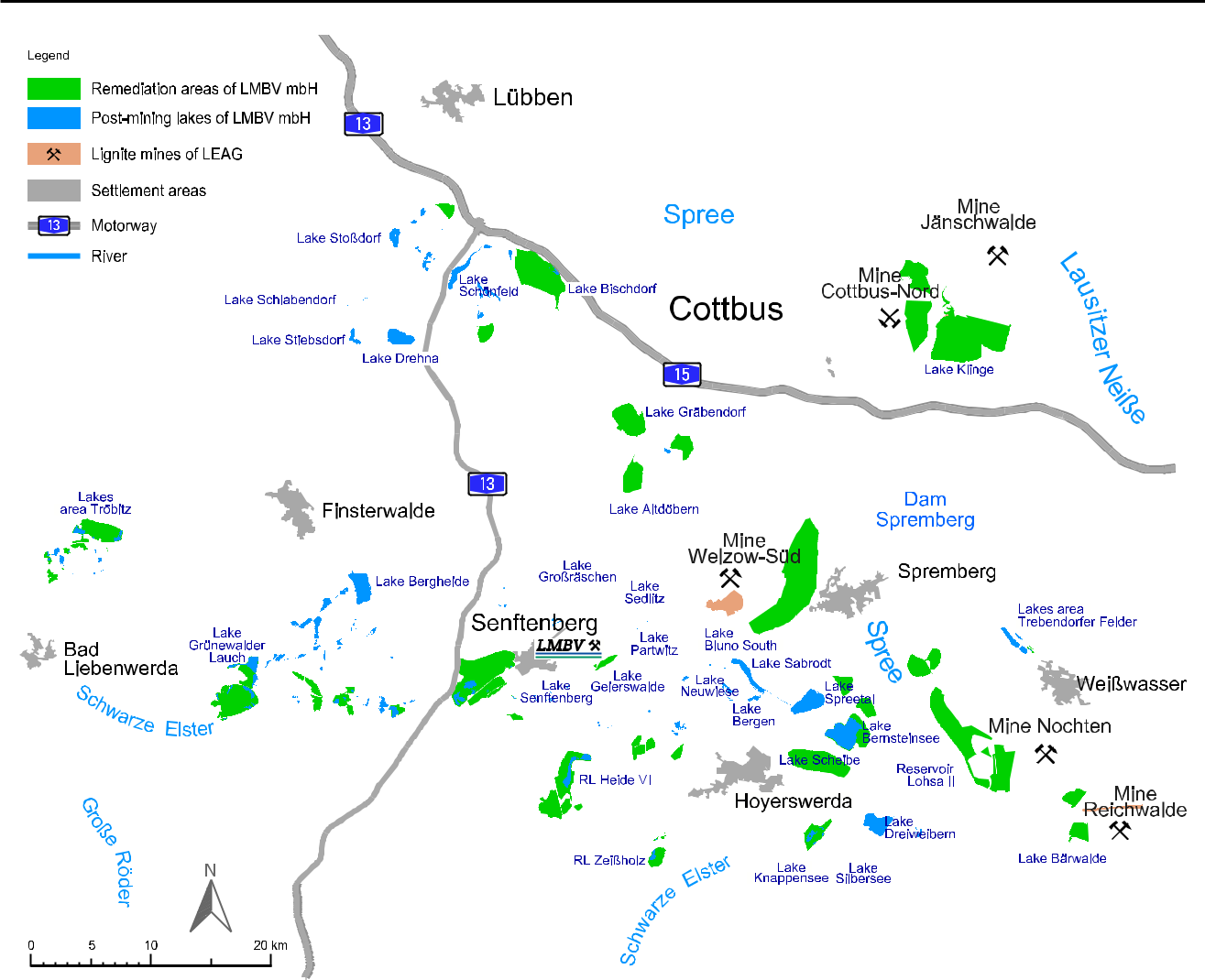
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**Keywords**

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**Fig. 1**

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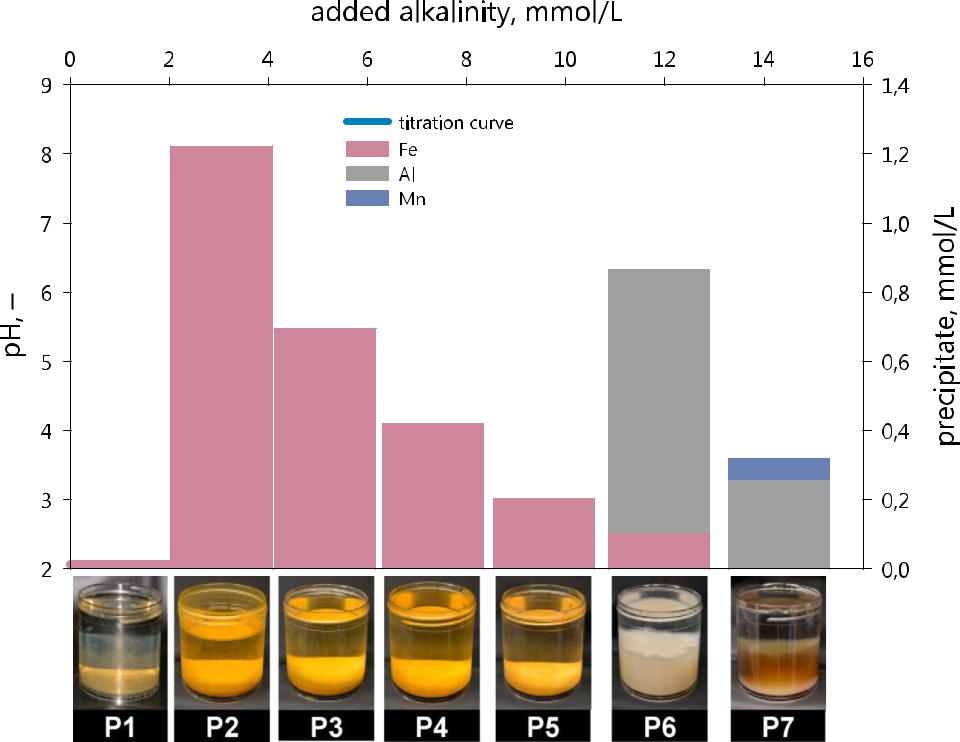
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**Fig. 2**



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**Fig. 3**



**Fig. 4**

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**Fig. 5**



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**Fig. 6**



**Fig. 7**

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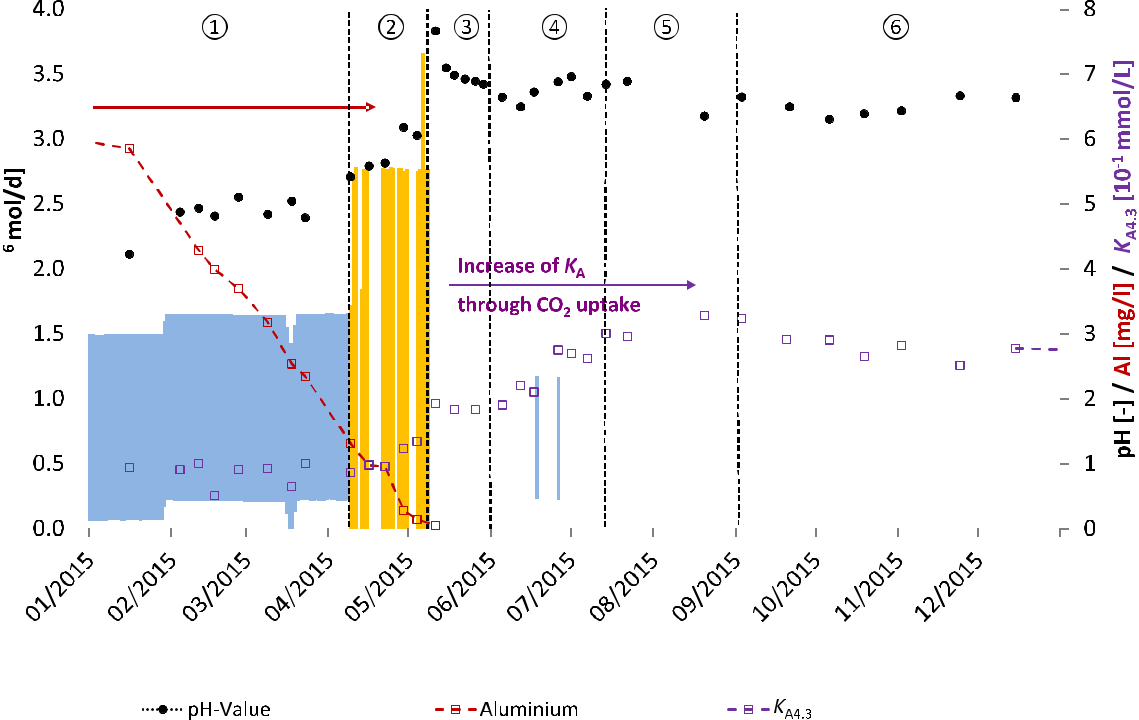
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**Fig. 8**

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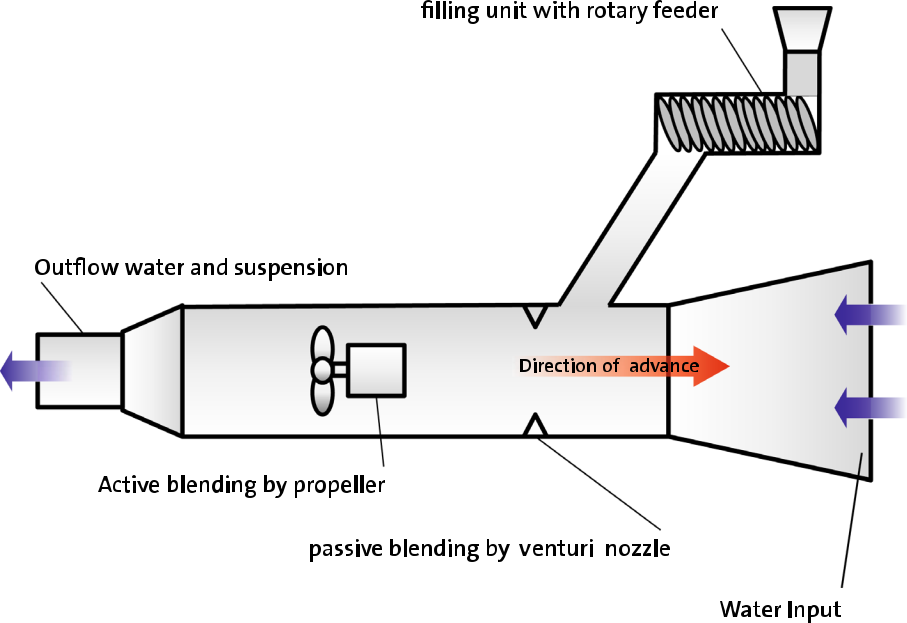


**Fig. 9**

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**Fig. 10**



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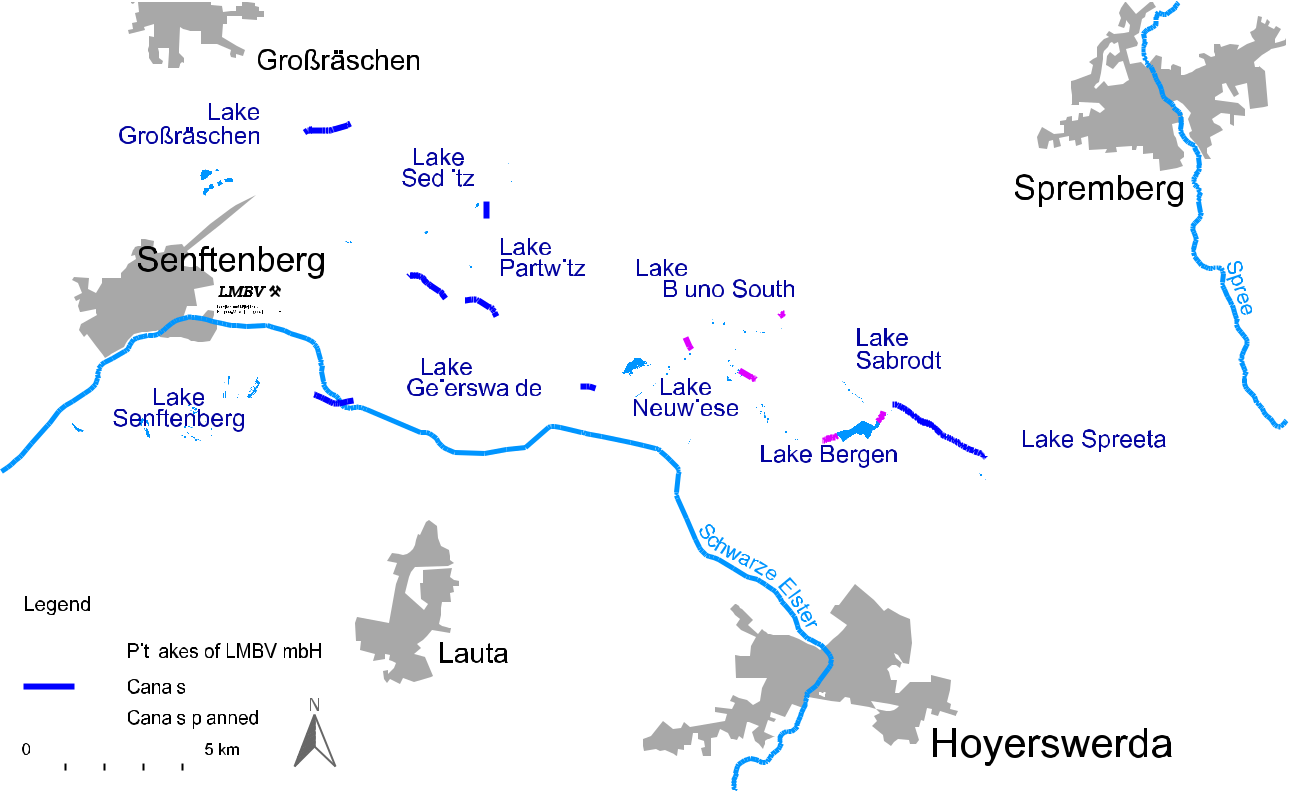
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**Fig. 11**

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**Fig. 12**



**Fig. 13**

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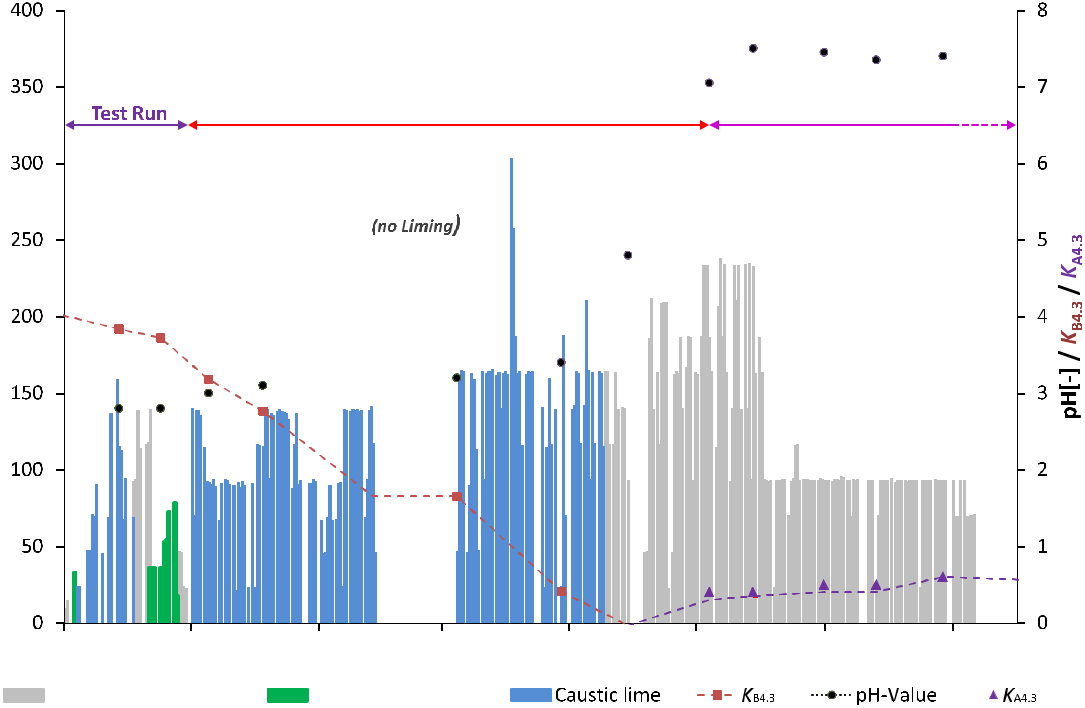
CA(OH)2 + CO2 → CA2+ + OH− + HCO−3

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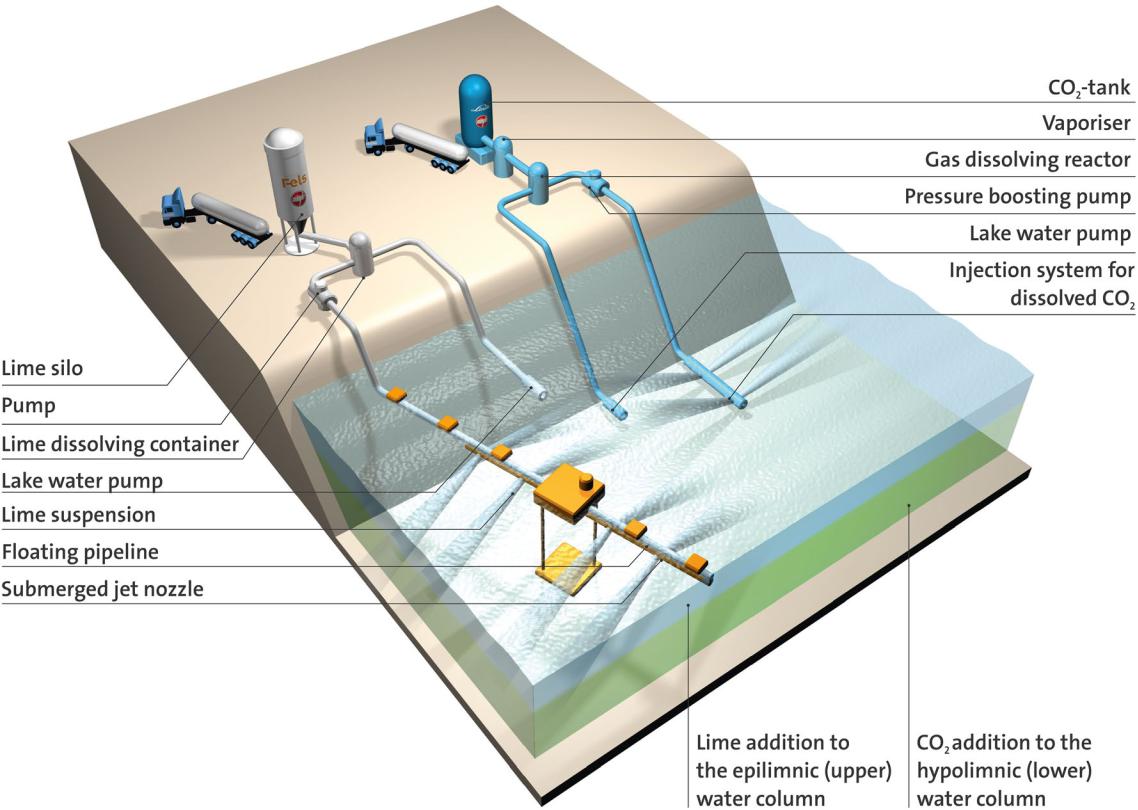
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| − | CACO3 + H2O → CA2+ | + OH− + HCO3− |  |
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**Fig. 14**

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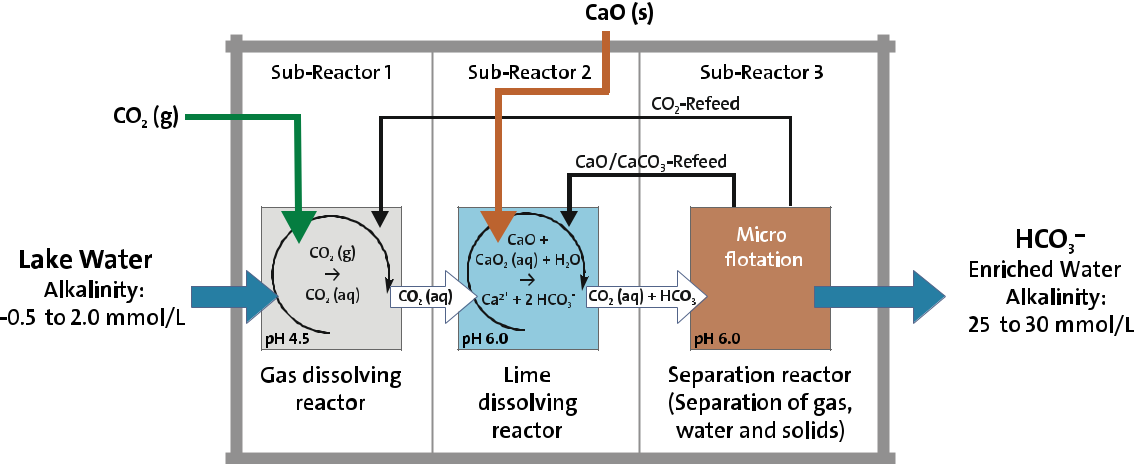
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**Fig. 15**

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**Fig. 16**

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