

Chemische Analytik des Sickerwassers aus dem Haldenbereich (GWM 2 und 3) sowie des Grundwassers am westlichen Haldenfuß (GWM 4) aus 2017 und 2019.

| Parameter | Einheit | Messwert GWM 2 (08/2017) (04/2019) | Messwert GWM 3 (08/2017) (04/2019) | Messwert GWM 4 (05/2017) (04/2019) | Einleitung in R-Kanal oder Oberflächengewässer* | Schwellenwerte GrwV** | GFS LAWA*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-----------------|------------------------------------|------------------------------------|------------------------------------|---|-----------------------|-------------|-----------------------|-----------------|-------|-------|-------|-------|-----|---------|-------|-------|-------|-----------------------|-----------------|-------|-------|-------|-----|-----|---------|-------|-------|-------|-----------------------|------|-------|-------|-------|-----|-----|---------|------|-------|------|-------------------|------|-------|-------|-------|-----|-----|---------|------|-------|------|-------------|------|-------|-------|------|-----|-----|---------|------|-------|------|-------------|------|------|-------|------|-----|-----|---------|------|-------|------|-------------|------|------|-------|-----|-----|-----|---------|------|-------|------|-------------|------|------|-----|-----|-----|-----|---------|------|------|------|-------------|------|-----|-----|-----|----|-----|---------|------|------|------|-------------|------|-----|-----|-----|----|-----|---------|------|------|------|-------------|------|-----|-----|-----|----|-----|---------|------|------|------|-------------|------|-----|-----|-----|----|---|---------|------|------|------|--------|------|-----|----|-----|----|---|---------|------|------|------|--------|------|-----|----|-----|----|
| pH-Wert | | 7,4 | 7,8 | 7,4 | 6,5 – 8,5 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 7,5 | 7,7 | 7,4 | | | | Leitfähigkeit | µS/cm | 2.040 | 4.060 | 1.060 | 1.800 | - | - | 2.000 | 4.400 | 790 | Färbung | m ⁻¹ | 0,16 | 0,48 | 0,61 | - | - | - | < 0,5 | < 0,5 | < 0,5 | abfiltrierbare Stoffe | mg/l | 1.120 | 223 | 11,1 | 30 | - | - | - | - | - | absetzbare Stoffe | ml/l | 13 | 1,5 | < 0,1 | 0,3 | - | - | - | - | - | Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | 1,2 | 0,70 | 0,65 | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 |
| Leitfähigkeit | µS/cm | 2.040 | 4.060 | 1.060 | 1.800 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2.000 | 4.400 | 790 | | | | Färbung | m ⁻¹ | 0,16 | 0,48 | 0,61 | - | - | - | < 0,5 | < 0,5 | < 0,5 | abfiltrierbare Stoffe | mg/l | 1.120 | 223 | 11,1 | 30 | - | - | - | - | - | absetzbare Stoffe | ml/l | 13 | 1,5 | < 0,1 | 0,3 | - | - | - | - | - | Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | 1,2 | 0,70 | 0,65 | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | |
| Färbung | m ⁻¹ | 0,16 | 0,48 | 0,61 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 0,5 | < 0,5 | < 0,5 | | | | abfiltrierbare Stoffe | mg/l | 1.120 | 223 | 11,1 | 30 | - | - | - | - | - | absetzbare Stoffe | ml/l | 13 | 1,5 | < 0,1 | 0,3 | - | - | - | - | - | Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | 1,2 | 0,70 | 0,65 | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | |
| abfiltrierbare Stoffe | mg/l | 1.120 | 223 | 11,1 | 30 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | - | - | - | | | | absetzbare Stoffe | ml/l | 13 | 1,5 | < 0,1 | 0,3 | - | - | - | - | - | Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | 1,2 | 0,70 | 0,65 | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| absetzbare Stoffe | ml/l | 13 | 1,5 | < 0,1 | 0,3 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | - | - | - | | | | Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | 1,2 | 0,70 | 0,65 | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ammonium | mg/l | 0,034 | 0,025 | 0,14 | 5,0 | 0,5 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1,2 | 0,70 | 0,65 | | | | Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | 33 | 880 | 36 | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrat | mg/l | 21,2 | 433 | 39,8 | 50 | 50 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 33 | 880 | 36 | | | | Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | 910 | 1.400 | 120 | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfat | mg/l | 770 | 1.600 | 148 | 400 | 250 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 910 | 1.400 | 120 | | | | Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | 55 | 420 | 32 | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chlorid | mg/l | 81,4 | 231 | 132 | 250 | 250 | 250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 55 | 420 | 32 | | | | Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | < 10 | < 10 | < 10 | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsen | µg/l | < 3 | 7,6 | < 3 | 20 | 10 | 2 – 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 10 | < 10 | < 10 | | | | Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | < 10 | < 10 | < 10 | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blei | µg/l | 3,4 | 5,7 | < 3 | 20 | 10 | 10 – 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 10 | < 10 | < 10 | | | | Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | < 1 | < 1 | < 1 | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | µg/l | < 1 | 15 | < 1 | 5 | 0,5 | 1 – 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 1 | < 1 | < 1 | | | | Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | < 10 | < 10 | < 10 | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chrom, ges. | µg/l | < 5 | < 5 | < 5 | 50 | - | 10 – 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 10 | < 10 | < 10 | | | | Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | < 20 | < 20 | < 20 | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kupfer | µg/l | < 5 | 81 | 13 | 20 | - | 20 – 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 20 | < 20 | < 20 | | | | Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | µg/l | < 5 | 14 | < 5 | 50 | - | 15 – 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | < 10 | 19 | < 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Parameter | Einheit | Messwert GWM 2 (08/2017) (04/2019) | Messwert GWM 3 (08/2017) (04/2019) | Messwert GWM 4 (05/2017) (04/2019) | Einleitung in R-Kanal oder Oberflächengewässer* | Schwellenwerte GrwV** | GFS LAWA*** |
|-------------------------|---------|------------------------------------|------------------------------------|------------------------------------|---|-----------------------|-------------|
| Quecksilber | µg/l | < 0,1 < 0,2 | < 0,1 < 0,2 | < 0,1 < 0,2 | 1 | 0,2 | 0,5 – 1 |
| Zink | µg/l | 16 < 50 | 1.900,0 130 | < 5 < 50 | 500 | - | 100 – 300 |
| Eisen | mg/l | 0,33 < 0,05 | 0,14 < 0,05 | 0,075 < 0,05 | 2,0 | - | - |
| leicht freisetz. Cyanid | µg/l | < 5 < 5 | < 5 < 5 | < 5 < 5 | 10 | - | 5 - 10 |
| DOC | mg/l | 2,6 12 | 12,1 12 | 7,6 1,5 | 10,0 | - | - |
| AOX | µg/l | < 10 < 10 | 32 < 10 | 26 < 10 | 25 | - | - |
| MKW | mg/l | < 0,1 < 0,1 | < 0,1 < 0,1 | < 0,1 < 0,1 | 1,0 | - | 0,1 – 0,2 |
| BTEX | µg/l | n.n. < 1 | n.n. < 1 | n.n. < 1 | 10 | - | 10 - 30 |
| LCKW | µg/l | n.n. < 1 | n.n. < 1 | n.n. < 1 | 10 | 10 | 2 - 10 |
| PAK | µg/l | 0,036 < 0,2 | 0,14 < 0,2 | 0,11 < 0,2 | 20 | - | 0,1 – 0,2 |

Tabelle 1: Ergebnisse der Grundwasseranalytik GWM 2, GWM 3, GWM 4 aus 2017 und 2019; **Deponie "Freieslebenschacht" bei Großörner**

* ... Grenzwerte zur Einleitung von Wasser in Oberflächengewässer nach Land Berlin: Merkblatt – Grundwasserbenutzungen bei Baumaßnahmen und Eigenwasserversorgungsanlagen, Senatsverwaltung für Stadtentwicklung und Umwelt, 09/2013

** ... Schwellenwerte gem. Anlage 2 der Verordnung zum Schutz des Grundwassers (Grundwasserverordnung – GrwV 2010)

*** ... Geringfügigkeitsschwellenwerte für das Grundwasser, Bund- / Länderarbeitsgemeinschaft Wasser (LAWA 2004)