



本溪万利矿业有限责任公司尾矿库 安全现状评价报告

辽宁万泽安全技术咨询有限公司

资质证书编号：APJ-（辽）-015

二〇二五年一月



二维码说明:

在辽宁省开展的法定安全评价项目必须经辽宁省安全评价“互联网+智慧监管”系统取得监管认证二维码,各级应急管理部门可通过扫码下载“辽宁安评APP”核验项目状态,使用APP扫码后橙色为可评审状态,绿色为可备案状态。

本溪万利矿业有限责任公司尾矿库

安全现状评价报告

ln-LNWZ-XZPJ-2024-0007

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2025 年 01 月 15 日

(评价机构公章)

前 言

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[REDACTED]

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第 1 章 评价目的、依据、范围与程序

1.1 评价目的

[REDACTED]

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[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

1.2 评价依据

1.2.1 法律法规

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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1.2.2 行政法规

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1.2.3 标准规范

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A horizontal bar chart with 15 bars of varying lengths, representing percentages. The bars are arranged in a single column. The lengths of the bars correspond to the following approximate percentages: 10%, 90%, 95%, 75%, 98%, 25%, 65%, 78%, 85%, 80%, 95%, 20%, 98%, 22%, and 85%.

| Category | Percentage |
|----------|------------|
| 1 | 10% |
| 2 | 90% |
| 3 | 95% |
| 4 | 75% |
| 5 | 98% |
| 6 | 25% |
| 7 | 65% |
| 8 | 78% |
| 9 | 85% |
| 10 | 80% |
| 11 | 95% |
| 12 | 20% |
| 13 | 98% |
| 14 | 22% |
| 15 | 85% |

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1.2.3 企业提供的主要相关文件

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1.3 评价范围和程序

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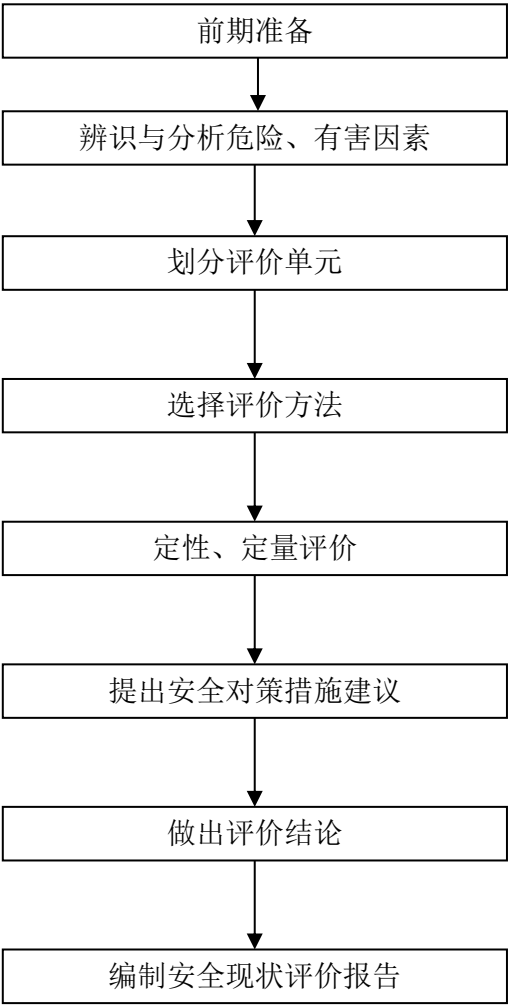


图 1-1 安全现状评价程序图

第 2 章 尾矿库概况

2.1 企业简介

[Redacted text block]

2.2 尾矿库库区基本情况

2.2.1 地理位置及周边环境

[Redacted text block]



图 2-1 尾矿库交通位置图

[Redacted text block]



图 2-2 尾矿库周边环境图



图 2-3 尾矿库下游照片



图 2-4 下游村内报警、广播设施

2.2.2 尾矿库地形地貌

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2.2.3 尾矿库水文气象条件

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2.2.4 库区工程地质条件

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2.2.5 水文地质条件

[Redacted text block containing blacked-out content]

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2.2.6 场地地震效应

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2.2.7 尾矿库等别、防洪标准及最小安全超高与最小滩长

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| [Redacted] | [Redacted] | [Redacted] |
| [Redacted] | [Redacted] | [Redacted] |
| [Redacted] | [Redacted] | [Redacted] |
| [Redacted] | [Redacted] | [Redacted] |
| [Redacted] | [Redacted] | [Redacted] |
| [Redacted] | [Redacted] | [Redacted] |

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| [Redacted] | [Redacted] | [Redacted] | [Redacted] | [Redacted] | [Redacted] |

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2.2.8 尾矿库库容及服务年限

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2.3 尾矿库设计概况

2.3.1 尾矿坝设计概况

[Redacted text block]

[Redacted text block]

2.3.2 排洪系统设计概况

[Redacted text block]

2.3.4 安全监测设施设计概况

[Redacted text block]

A series of horizontal black bars of varying lengths, representing redacted text. The bars are arranged in a list-like fashion, with some bars being longer than others, suggesting different levels of redaction or different types of information being withheld. The bars are solid black and have no text or other markings on them.

[Redacted text block]



图 2-5 尾矿库坝面



图 2-6 堆积坝反坡



图 2-7 尾矿库坝顶



图 2-8 排水沟

2.4.2 排洪系统

[Redacted text block containing multiple paragraphs of information related to the flood discharge system.]

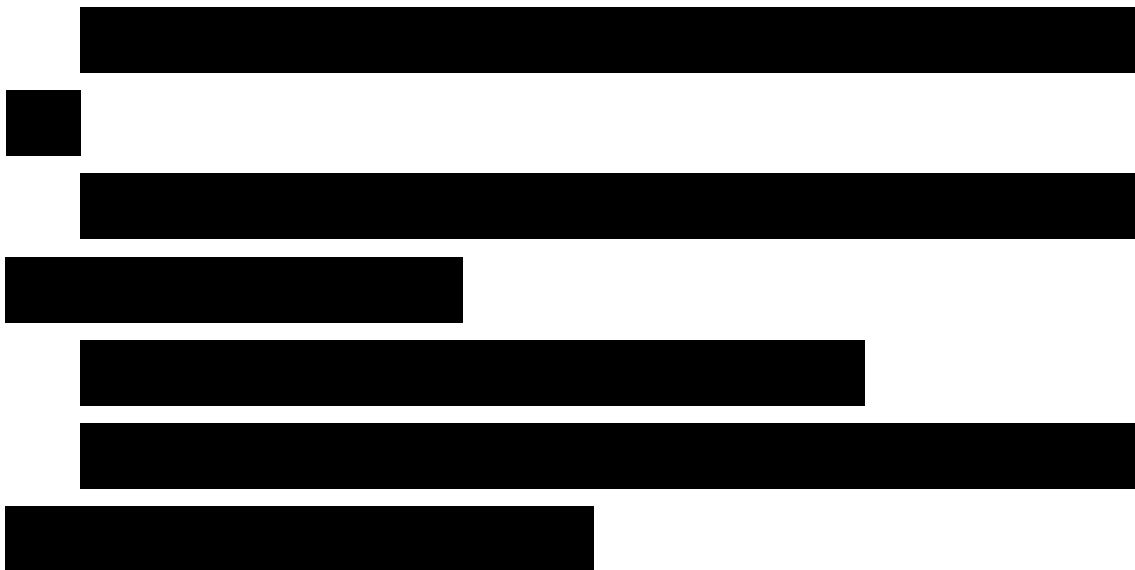


图 2-9 排水斜槽



图 2-10 排水斜槽



图 2-11 排水斜槽出水口

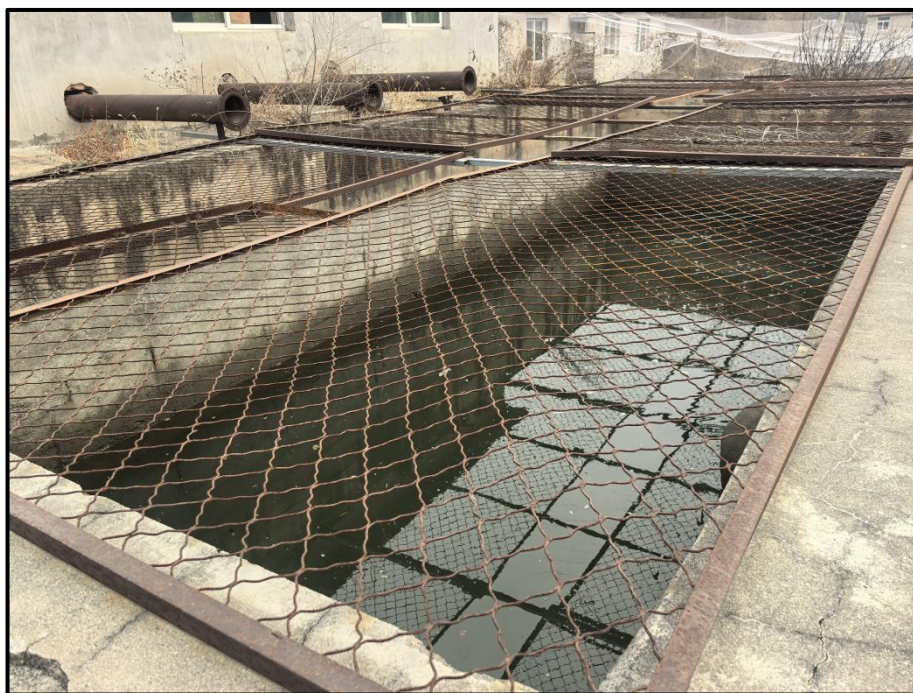


图 2-12 尾矿库回水池

2.3.3 尾矿库内滩面

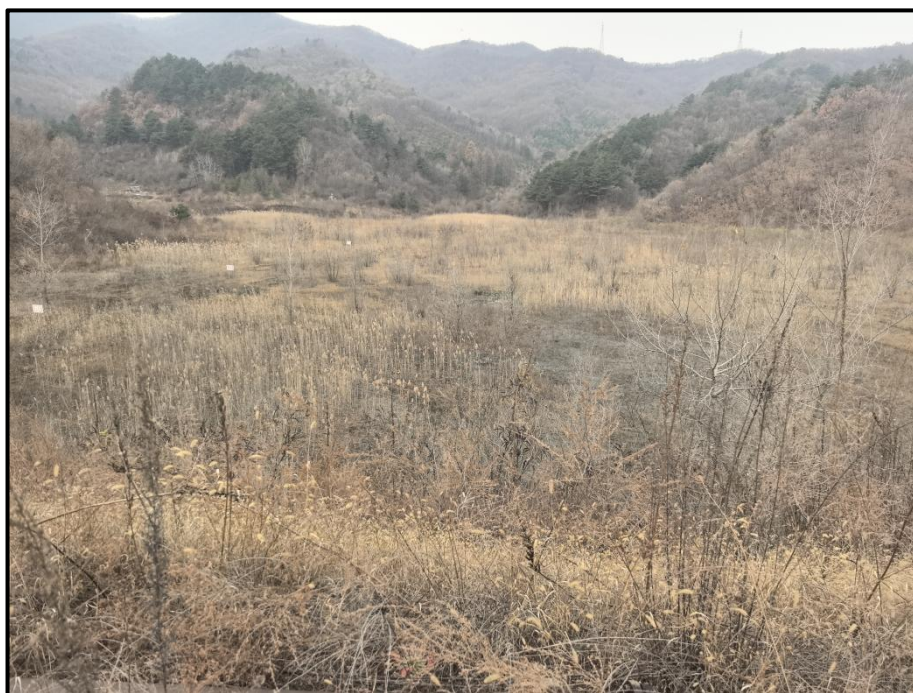


图 2-13 库内滩面

2.3.4 尾矿库安全监测设施

[Redacted text block containing multiple paragraphs of information related to tailings storage safety monitoring facilities.]

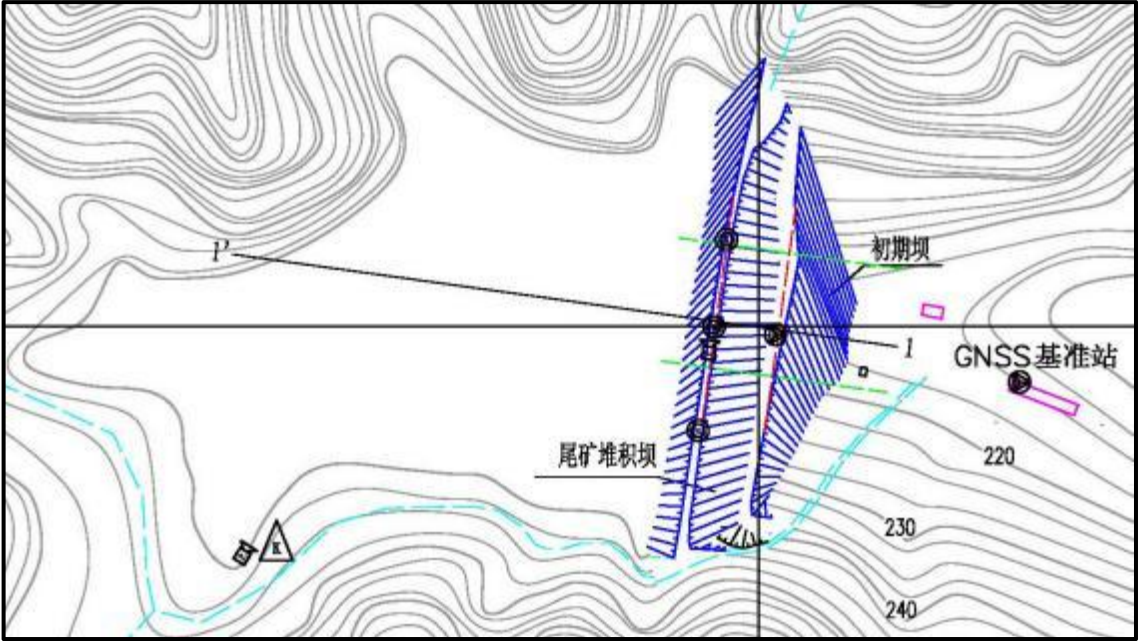


图 2-14 安全监测设施布置图



图 2-15 浸润线检测设施



图 2-16 视频监控设施



图 2-17 干滩标尺



图 2-18 视频监控及雨量计

2.3.6 辅助设施



。



图 2-19 上坝道路



图 2-20 安全警示标志



图 2-21 尾矿库相关内容信息牌



图 2-22 尾矿库值班室



图 2-23 尾矿库应急物资

2.4 尾矿库安全管理

[REDACTED]

[REDACTED]

This image consists of a series of horizontal black bars of varying lengths, arranged in a vertical sequence. The bars are solid black and set against a white background. The arrangement is as follows:

- A short bar starting from the left edge.
- A long bar starting from the left edge.
- A long bar starting from the left edge.
- A medium-length bar starting from the left edge.
- A long bar starting from the left edge.
- A long bar starting from the left edge.
- A medium-length bar starting from the left edge.
- A long bar starting from the left edge.
- A long bar starting from the left edge.
- A short bar starting from the left edge.
- A long bar starting from the left edge.
- A long bar starting from the left edge.
- A short bar starting from the left edge.
- A long bar starting from the left edge.
- A long bar starting from the left edge.
- A short bar starting from the left edge.

第3章 主要危险、有害因素辨识与分析

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3.1 尾矿库主要危险、有害因素辨识与分析

3.1.1 尾矿库库址及周边环境主要危险、有害因素辨识与分析

[REDACTED]

[REDACTED]

3.1.2 坝体主要危险、有害因素辨识与分析

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3.1.3 库内放矿可能引发的主要危险、有害因素辨识与分析

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3.1.5 尾矿输送与回水利用的主要危险、有害因素辨识与分析

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3.1.6 自然灾害可能引发的主要危险、危害因素辨识与分析

[Redacted text block for 3.1.6]

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3.2 生产过程中的主要危险、有害因素辨识分析

3.2.1 物体打击

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3.2.2 高处坠落

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

3.2.3 淹溺伤害

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[Redacted]

[Redacted]

[Redacted]

3.2.4 机械伤害

[Redacted]

[Redacted]

3.2.5 电气伤害

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3.2.6 尾矿库扬尘

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3.3 安全管理危险、有害因素分析

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[Redacted]

3.4 重大危险源辨识分析

[Redacted]

[Redacted]

第 4 章 评价单元划分与评价方法选择

4.1 评价单元划分

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4.2 评价方法选择

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4.2.1 安全检查表法

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4.2.2 专家评议法

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第5章 定性、定量评价

5.1 库址及周边环境单元

5.1.1 库区环境安全检查

表 5-1 尾矿库库址选择及周边环境安全检查表

| 序号 | 检查项目 | 检查内容 | 检查结果 | 备注 |
|----|------|--|--------------------------------------|----|
| 1 | 库址选择 | 1. 库址是否位于居民区、学校、医院等敏感目标附近？ 2. 库址是否位于地质灾害易发区？ 3. 库址是否位于洪水淹没区？ 4. 库址是否位于地震震中附近？ 5. 库址是否位于自然保护区、风景名胜区等敏感目标附近？ | 1. 否 2. 否 3. 否 4. 否 5. 否 | |
| 2 | 周边环境 | 1. 库区周边是否有污染源？ 2. 库区周边是否有易燃易爆物品？ 3. 库区周边是否有危险化学品？ 4. 库区周边是否有其他危险源？ 5. 库区周边是否有其他安全隐患？ | 1. 否 2. 否 3. 否 4. 否 5. 否 | |
| 3 | 安全设施 | 1. 库区是否设有安全警示标志？ 2. 库区是否设有安全通道？ 3. 库区是否设有安全防护设施？ 4. 库区是否设有消防设施？ 5. 库区是否设有其他安全设施？ | 1. 是 2. 是 3. 是 4. 是 5. 是 | |

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A series of ten horizontal black bars of varying lengths, stacked vertically, representing redacted text.

5.2 尾矿坝单元

5.2.1 尾矿坝体与排放安全度评价分析

表 5-2 尾矿坝体与排放安全检查

| Category | Item | Value | Unit | Notes |
|----------|--------|-------|------|-------|
| A | Item A | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| B | Item B | | | |
| | | | | |
| | | | | |
| | | | | |
| C | Item C | | | |
| | | | | |
| | | | | |
| | | | | |
| D | Item D | | | |
| | | | | |
| | | | | |
| | | | | |
| E | Item E | | | |
| | | | | |
| F | Item F | | | |
| | | | | |
| G | Item G | | | |
| | | | | |
| | | | | |

5.2.2 坝体稳定性分析

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

表 5-3 尾矿坝稳定计算的荷载组合

表 5-4 尾矿坝岩土体物理力学参数

| | | | | | | | |
|---|--|---|---|---|---|---|---|
| ■ | | | ■ | | ■ | | ■ |
| ■ | | ■ | | ■ | | ■ | ■ |
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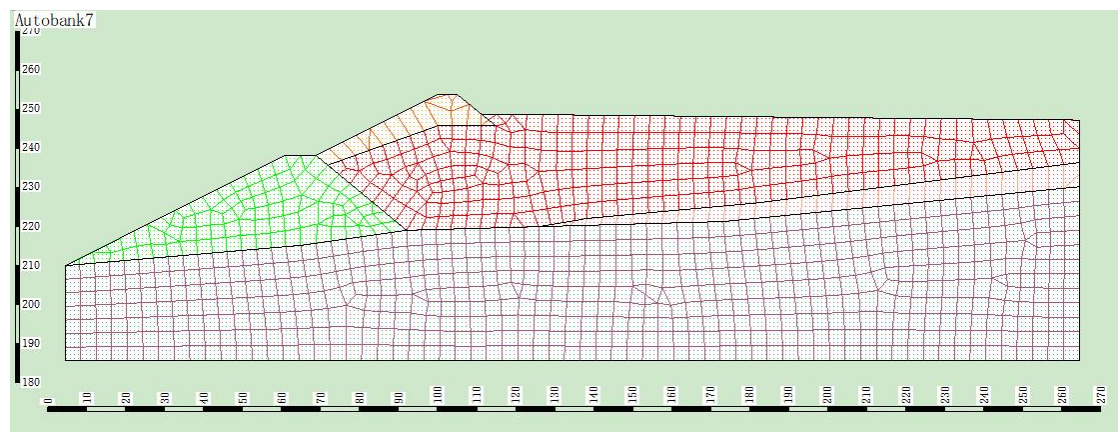


图 5-1 尾矿库概化分区图

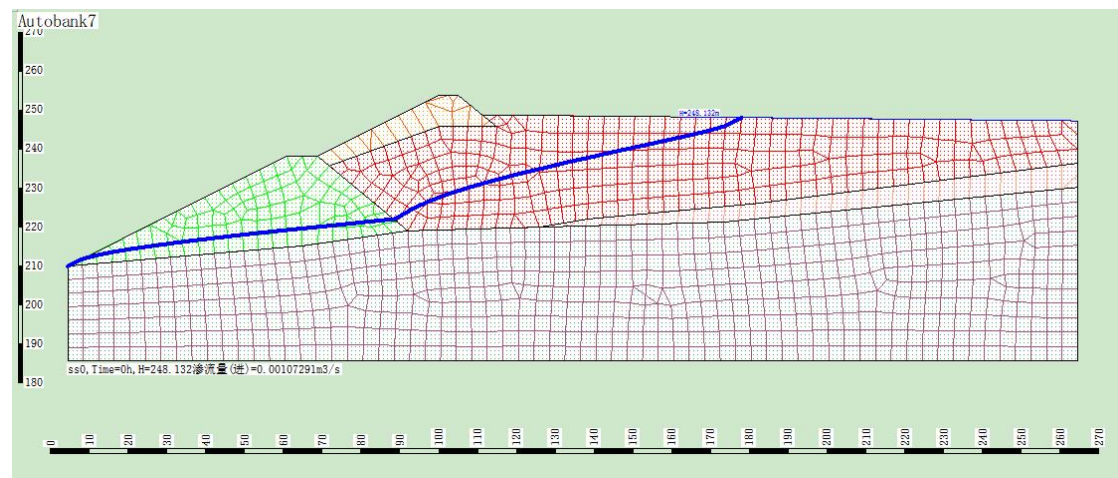


图 5-2 尾矿库渗流分析图

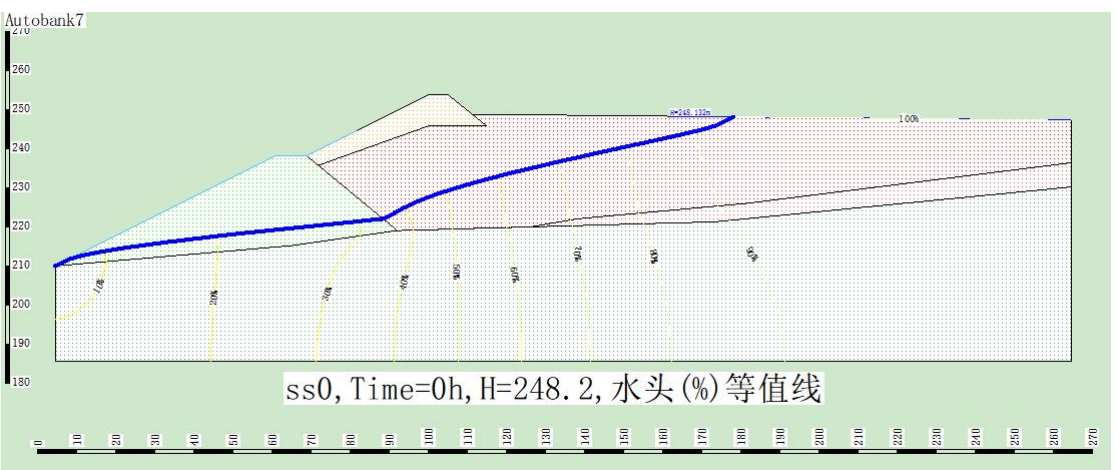


图 5-3 水头等值线图

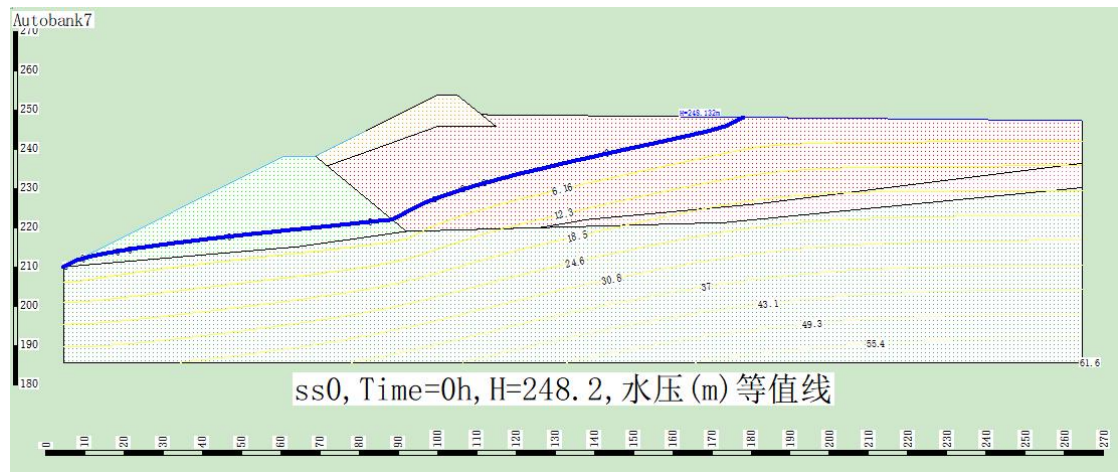


图 5-4 水压等值线图

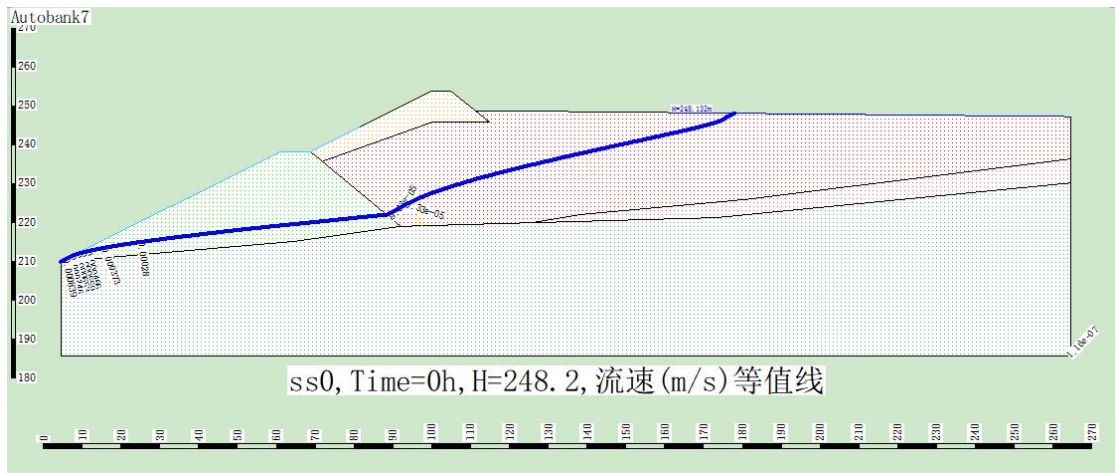


图 5-5 流速等值线图

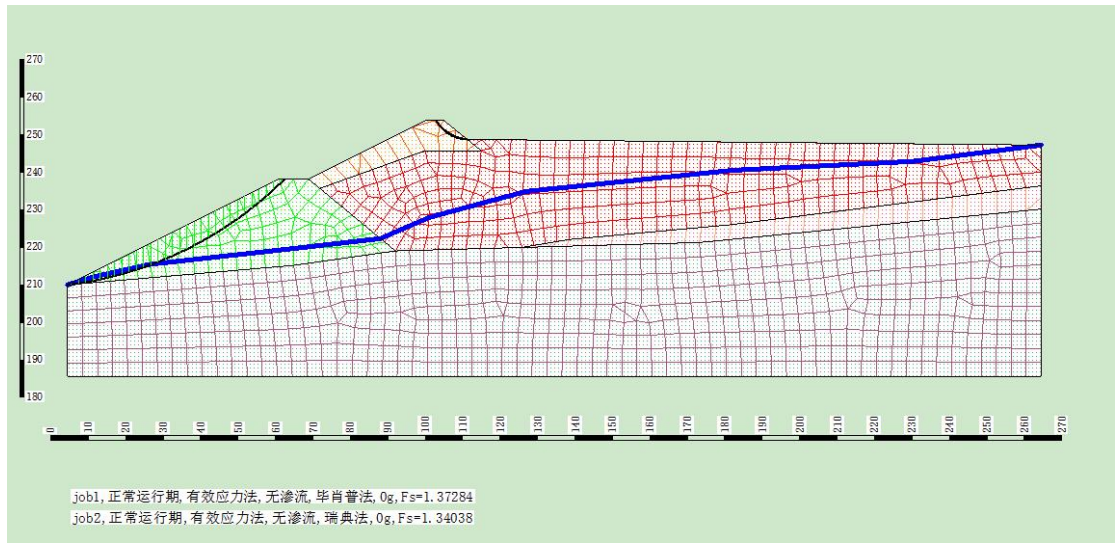


图 5-6 尾矿库正常工况毕肖普法（瑞典法）剖面图

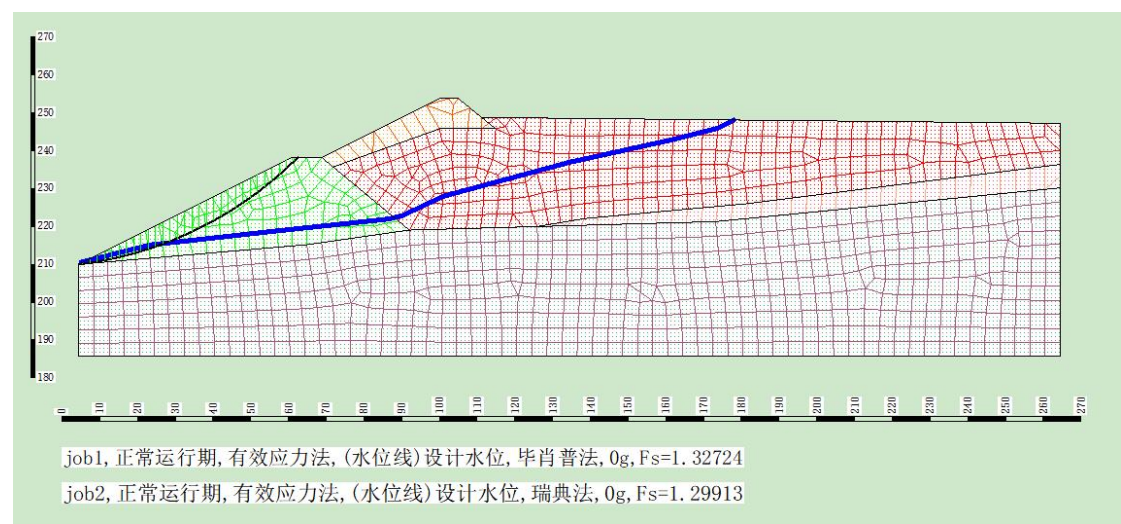


图 5-7 尾矿库洪水工况毕肖普法（瑞典法）剖面图

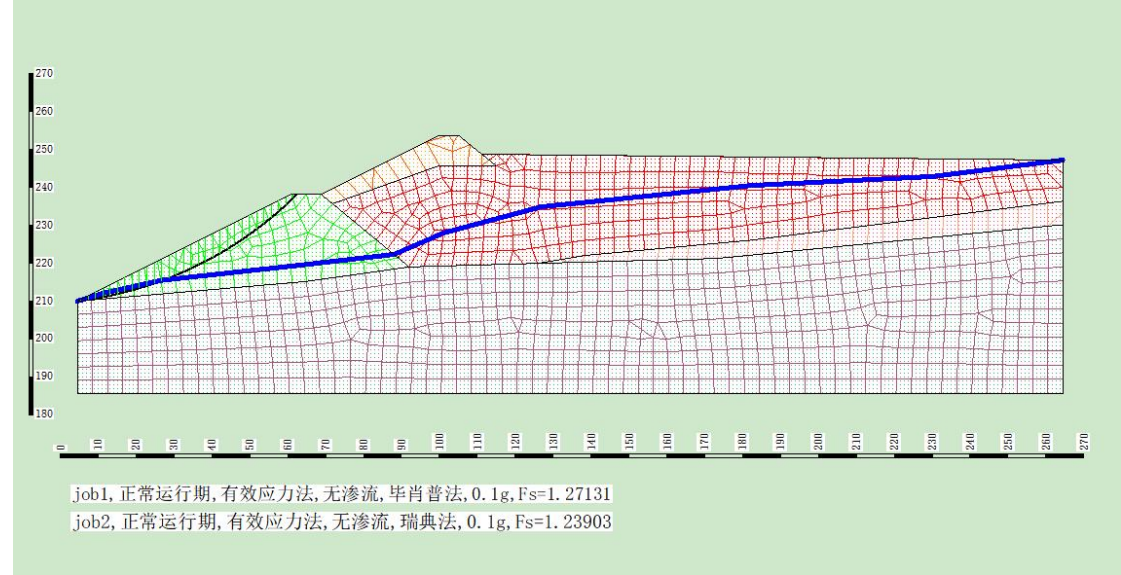


图 5-8 尾矿库特殊工况毕肖普法（瑞典法）剖面图

表 5-5 稳定计算结果表

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[REDACTED]

5.2.3 评价结果分析

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5.3 尾矿库防洪系统单元

5.3.1 尾矿库防洪安全度评价分析

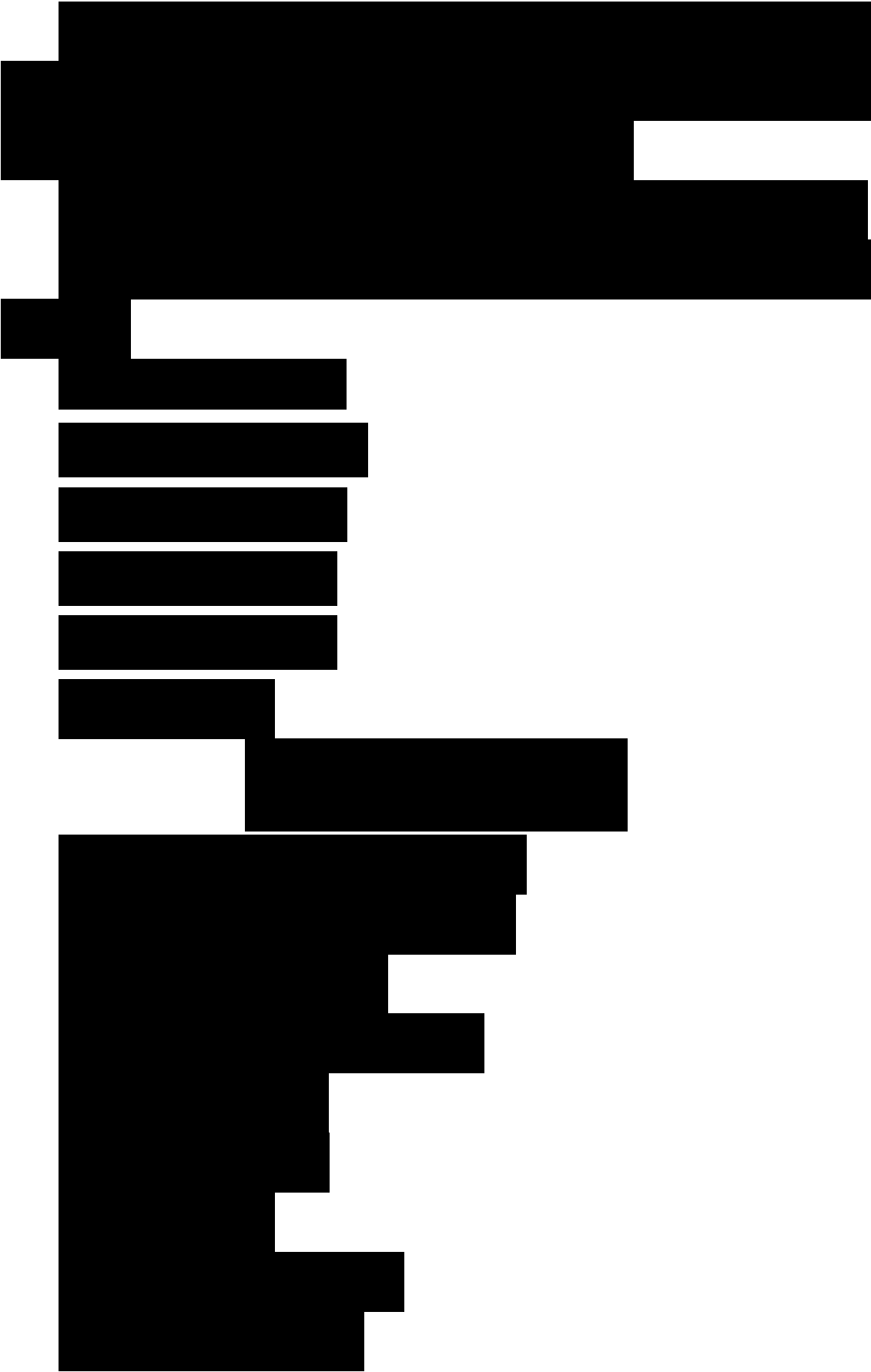
表 5-6 防洪排水系统安全检查表

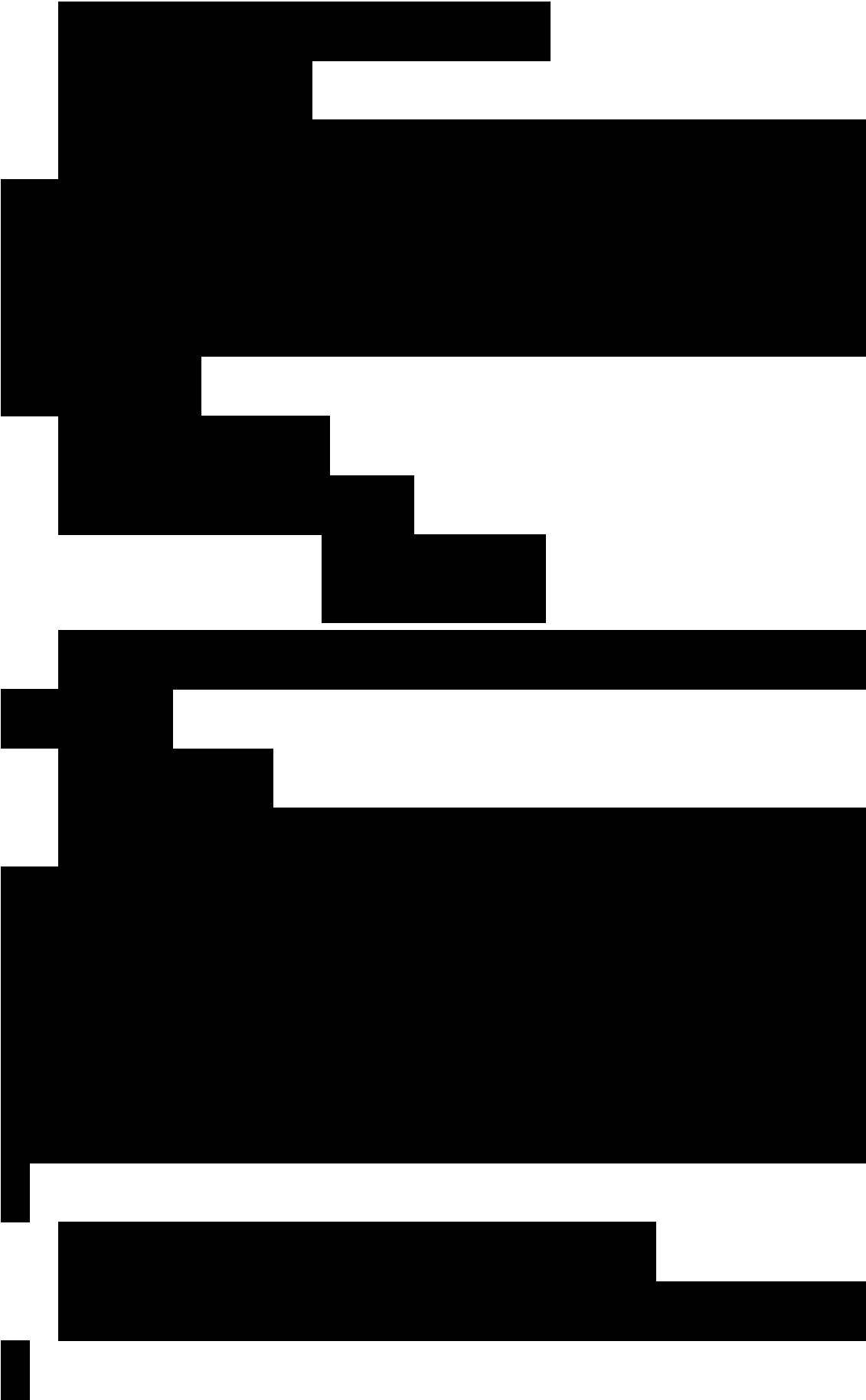
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|------------|--|--------------------------|--------------------------|--------------------------|
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] [REDACTED] [REDACTED] | [REDACTED] [REDACTED] | [REDACTED] [REDACTED] | [REDACTED] [REDACTED] |

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5.3.2 尾矿库排水系统能力校核

5.3.2.1 尾矿库水文计算

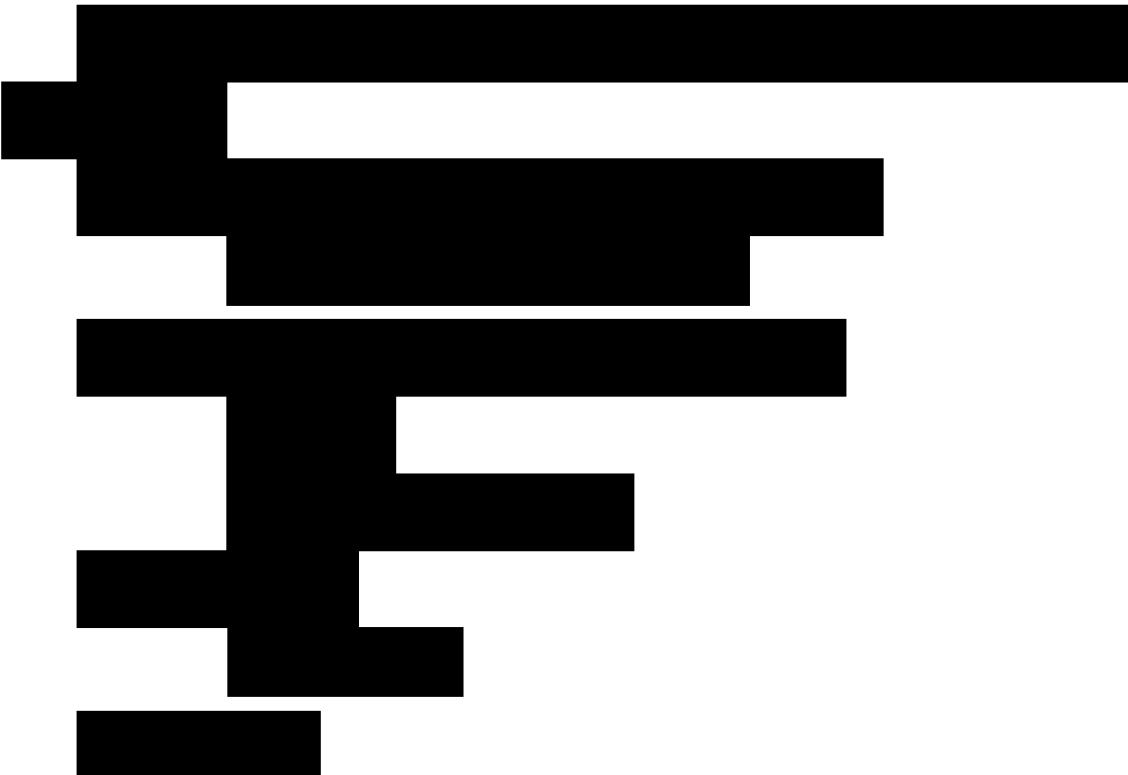




[illegible]

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| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |

[REDACTED]

[illegible]

[illegible]



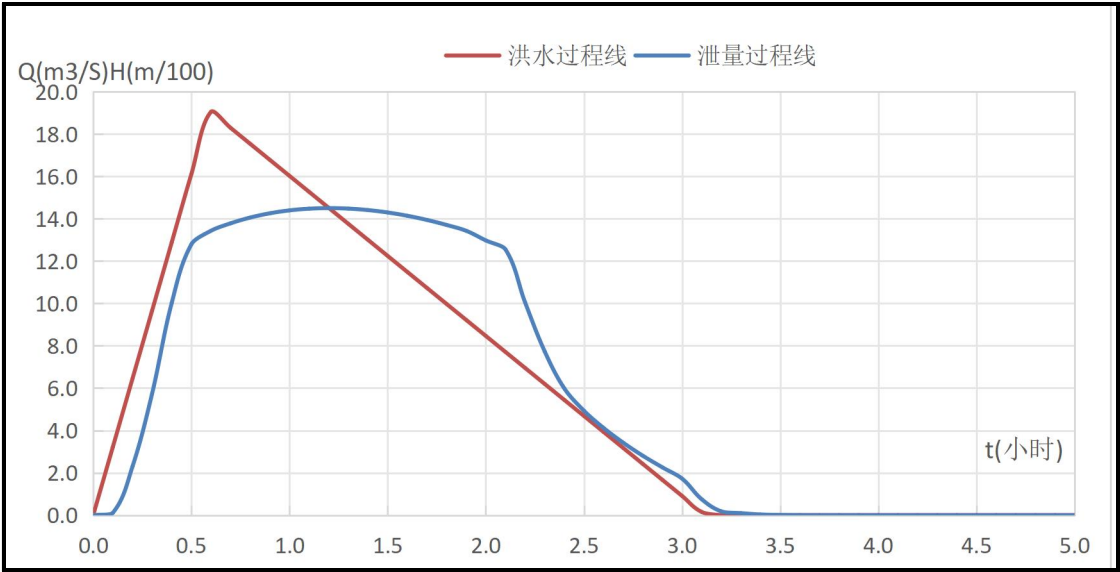


图 5-9 尾矿库调洪计算结果曲线

5.3.2.4 尾矿库调洪验算

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5.3.2.5 排水能力校核结论

5.4 尾矿库安全监测设施单元

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| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
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5.6 重大安全隐患排查单元

5.6.1 重大安全隐患排查单元评价

[illegible]

辽宁万泽安全技术咨询服务有限公司

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5.6.2 单元评价小结

[REDACTED]

[REDACTED]

[REDACTED]

第 6 章 安全对策措施及建议

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6.1 尾矿库库址及周边环境安全对策措施

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6.2 尾矿坝坝体安全对策措施

[REDACTED]

[REDACTED]

[REDACTED]

| Bar Index | Approximate Length (Percentage) |
|-----------|---------------------------------|
| 1 | 100% |
| 2 | 20% |
| 3 | 100% |
| 4 | 35% |
| 5 | 100% |
| 6 | 10% |

6.4 尾矿库监测设施安全对策措施

6.5 尾矿库安全管理安全对策措施

6.5.1 尾矿库维护

6.5.2 尾矿库水位控制与防汛

[Redacted text block]

6.5.3 应急救援预案

[Redacted text block]

6.5.4 尾矿库的档案管理

[Redacted text block]

第 7 章 评价结论

7.1 尾矿库坝体稳定性安全复核

[Redacted]

7.2 尾矿库排洪系统可靠性复核

[Redacted]

7.3 尾矿库安全监测评价

[Redacted]

7.4 尾矿库与周边环境的相互影响可靠性评价

[Redacted]

7.5 尾矿库评价结论

[Redacted]



附件目录

附图目录

