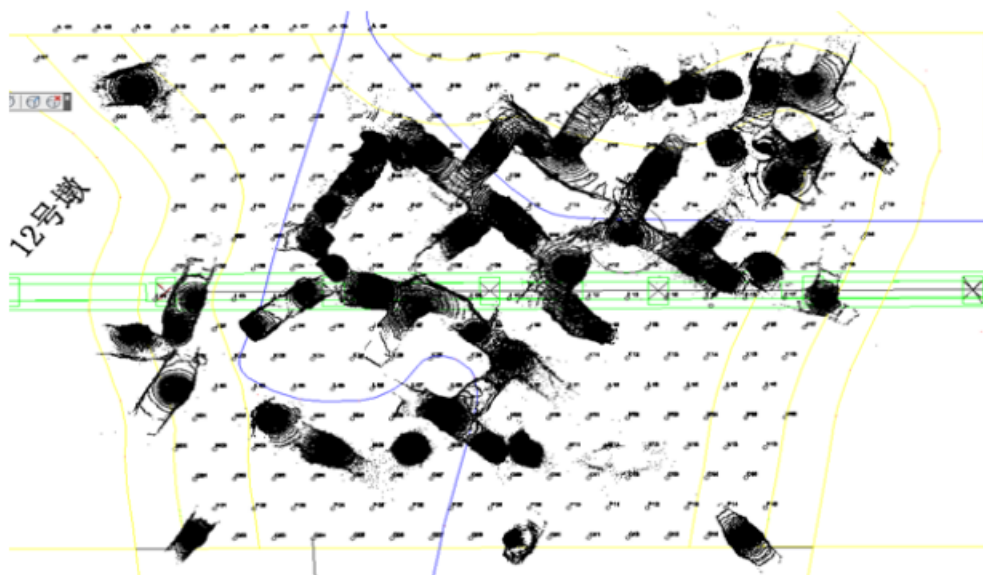


## 案例一：同煤集团运煤铁路桥下煤矿采空区测量

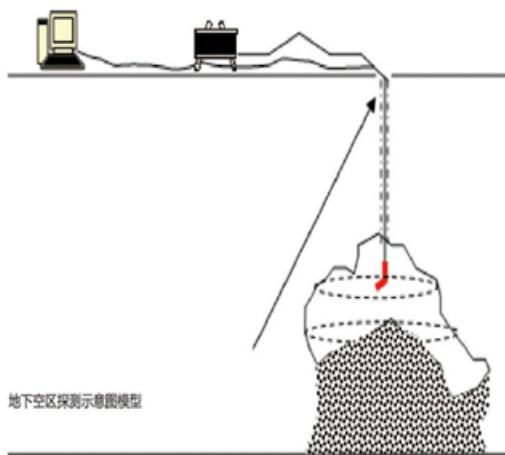
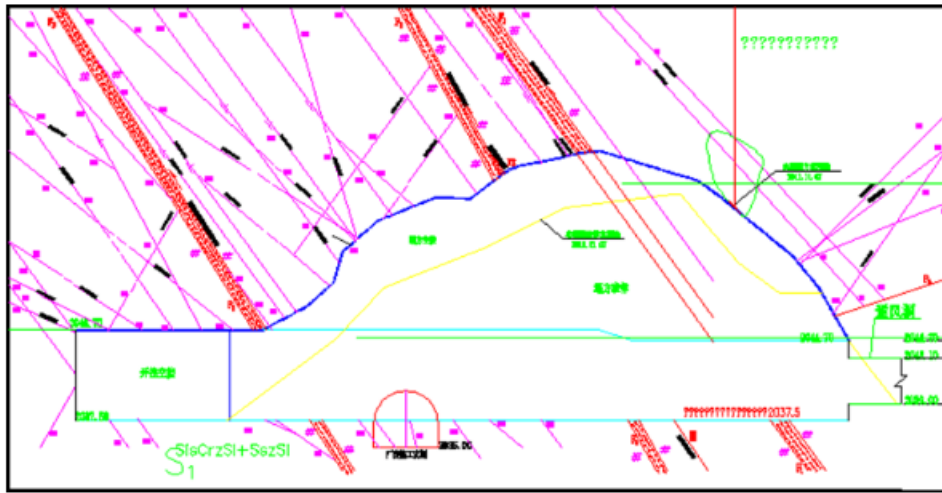
作业现场：



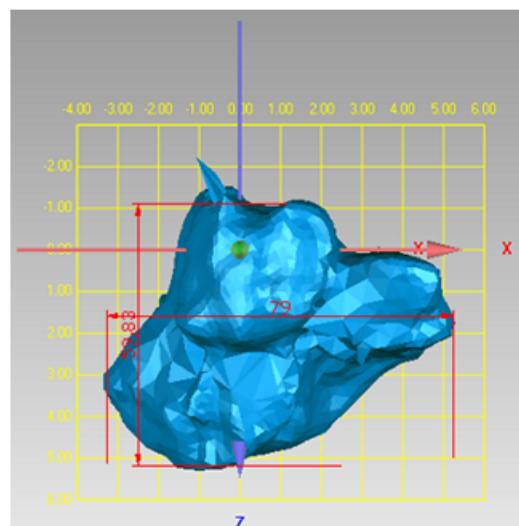
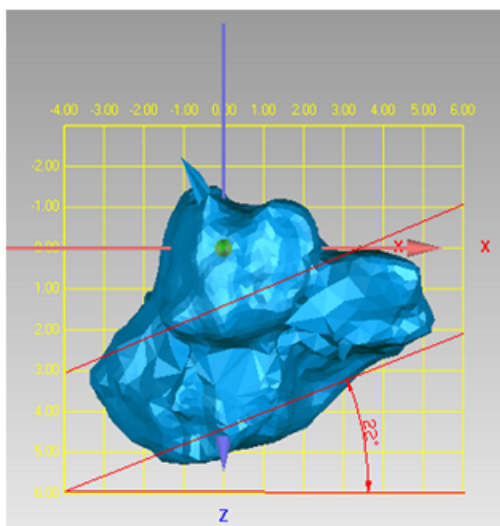
项目概况：由于历史原因，桥梁下分布大量采空区，基于物探结果，沿铁路沿线 8 米间隔布置勘察钻孔，设计钻孔 400 个，采用三维激光扫描测量后，优化布置钻孔 230 个，节省成本约 140 万元，提前工期 2 个月。

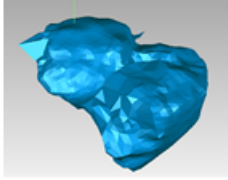


案例二：讨赖河三道湾水电站地下厂房塌方处理工程空腔探测项目

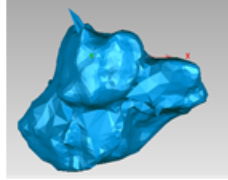


成果展示:

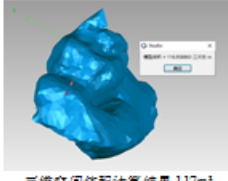




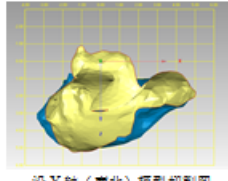
三维模型 X (东西) 方向型剖面图



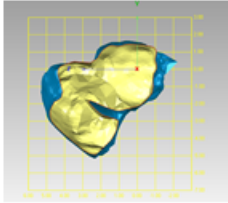
三维模型 Y (南北) 方向型剖面图



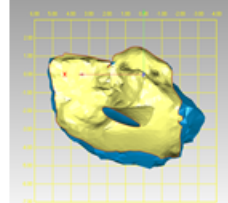
三维空间体积计算结果 117m³



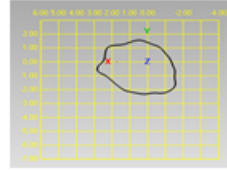
沿 Y 轴 (南北) 模型切割面



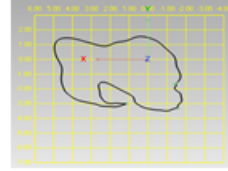
沿 X 轴 (东西) 模型切割面



沿 Z 轴 (俯视图) 模型切割面



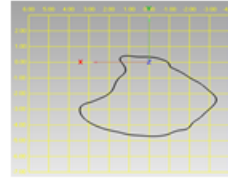
沿 Z 向 3 剖面



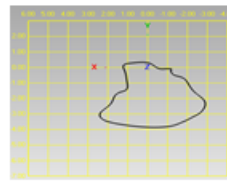
沿 Z 向 4 剖面



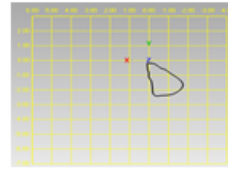
沿 Z 向 5 剖面



沿 Z 向 6 剖面



沿 Z 向 7 剖面



沿 Z 向 8 剖面