



Esri Mining Webinar Series

Building a Web Mapping Platform



Peter J Will

*Global Business Development
Natural Resources at Esri*



Matt Ballard

*Solution Engineer
Natural Resources at Esri*



Rachel Micander

*GIS Analyst/Cartographer - Geologist
Nevada Bureau of Mines and Geology*



Lucia M Patterson

*GIS Specialist - Geologist
Nevada Division of Minerals*

Esri Mining User Group (MUG)

- **Mission**

- Serve as a professional community of geospatial professionals in the mining industry
- Gather business needs from the mining community to prioritize Esri development efforts
- Coordinate seminars and networking events at major mining conferences and the Esri UC
- Facilitate webinars with Esri, mining user community, and the Esri Partner Network

- **About**

- In existence for more than 11 years
- > 2000 members, membership managed through LinkedIn (esriurl.com/MUGLinkedIn)



Webinar Agenda

- **Overview of Web-mapping & Enterprise GIS in Mining**
- **Web GIS and Platform Demonstration**
- **Nevada Bureau of Mines and Geology & Nevada Division of Minerals Presentation**
- **Q&A**

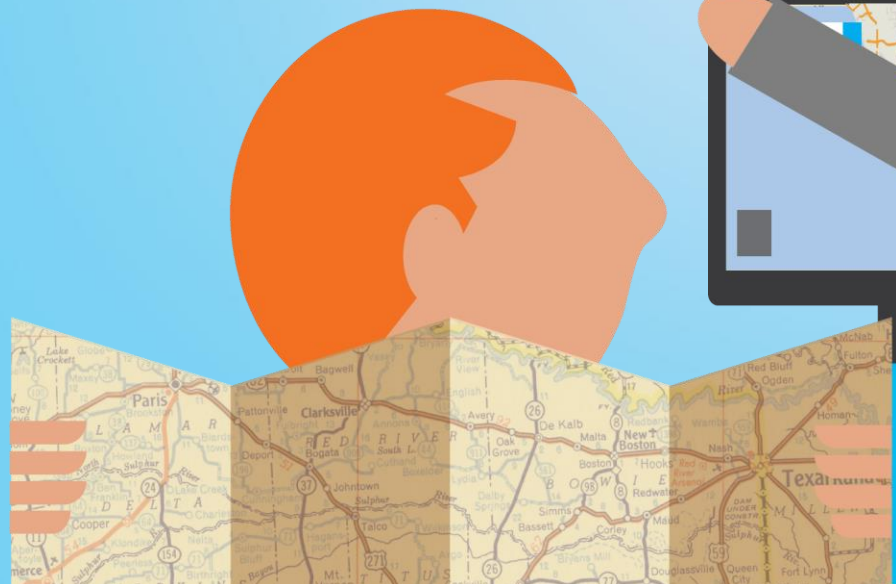


Maps are critical to your business

▶ Providing context and highlighting value

People Use Maps at Work

▶ But confusion results when maps are **not** generated from your authoritative information





Leveraging existing methods do not scale.

How Does Web GIS Help?

GIS Professionals

- Curate Content
- Author Web Maps
- Configure and Develop Applications



ArcGIS Pro



Executives

Operations

Mobile Workforce

Analysts

ArcGIS

Web GIS Weaves Together...

...Three Essential Systems

GIS

System of Record



System of Engagement



System of Insight



Develop the Atlas of Your Organization

Mapping all aspects of your business



Mine Models
Health & Safety
Boundaries
Investor Relations
Facility Management
Asset Tracking
Greenfield Exploration
Employee Safety
Field Operations
Risk Assessment
Analytics
Field Sampling
Land Management
Environmental
Tailing Monitoring
Science & Technology
Operations
Competitive Analysis
Haul Roads
Well Monitoring
Big Data
Wetlands Restoration
Infrastructure
Asset Management

ArcGIS Common Patterns of Use

Mapping & Visualization



Understand locations and relationships with maps and visual representations

Data Management



Collect, organize, and maintain accurate locations and details about assets and resources

Field Mobility



Manage and enable a mobile workforce to collect and access information in the field

Monitoring



Track, manage, and monitor assets and resources in real-time

Analytics



Discover, quantify, and predict trends and patterns to improve outcomes

Design & Planning



Evaluate alternative solutions and create optimal designs

Decision Support



Gain situational awareness, and enable information-driven decision making

Constituent Engagement



Communicate and collaborate with citizens and external communities of interest

Sharing & Collaboration



Empower everyone to easily discover, use, make, and share geographic information

Enabling Location Across the Mining Lifecycle



Exploration

- Satellite Imagery
- Paleo-mapping
- Soil Sampling
- Rock Sampling
- Drill Program Planning
- Geologic Mapping
- Target Identification



Feasibility Assessment & Permitting

- Permitting
- Environmental feasibility
- Surveying
- Tenement Management



Operations

- Mine Planning & Design
- Digital Twin
- Mine Wall Safety
- Heap Leach Modelling
- Blast hole mapping
- Pit Mapping
- Ore modelling



Logistics & Sales

- Supply Chain Mapping
- Market Analysis
- Inventory Management



HSE & Compliance

- Tailing Dam Inspections
- Monitoring Wells
- SPCC Inspections
- Drill regulatory inspections
- Field personnel monitoring



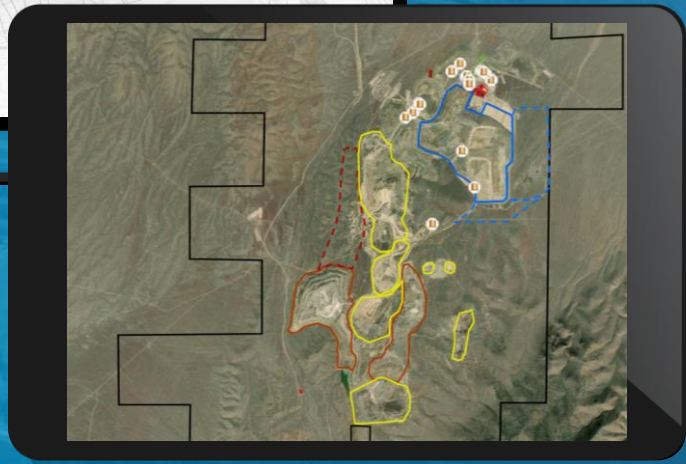
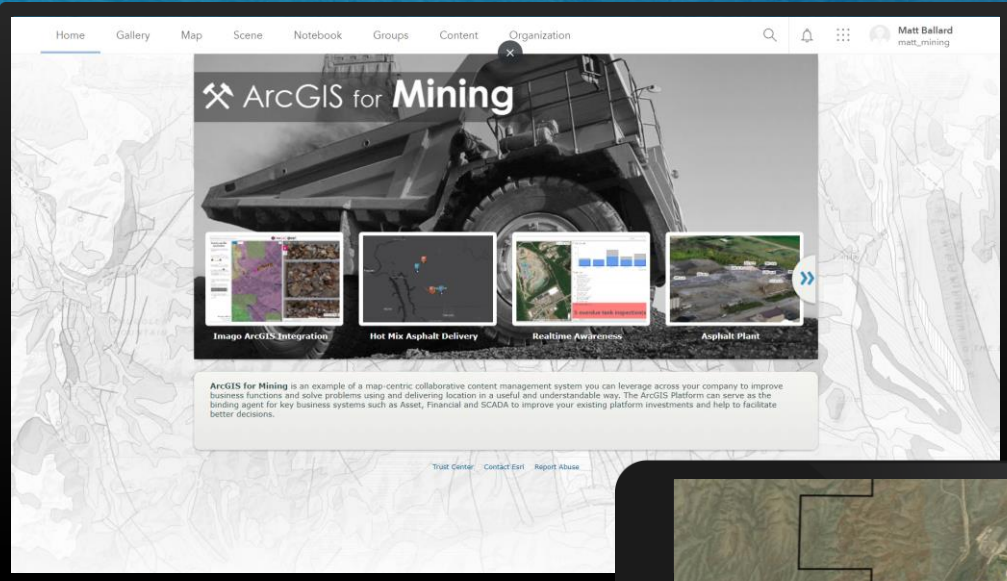
Reclamation

- Invasive Species Monitoring
- Top Soil cover Monitoring
- Reseeding Analysis
- Endangered Species Mapping



External Communication

- Investor Relations
- Community Engagement
- Corporate website map
- ESG
- Social Responsibility



ArcGIS Platform Overview

Demonstration

Matt Ballard

Central Geospatial Portal



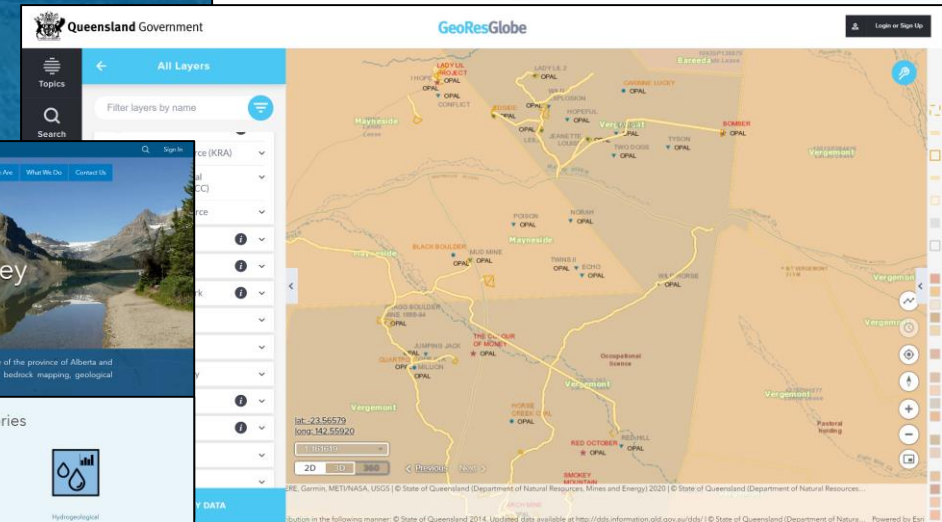
The screenshot shows the **ArcGIS for Mining** web portal. The header includes the logo and navigation links for Home, Business Units, and Mine Sites. The main content area features a large banner with the text "ArcGIS for Mining" and a search bar with the prompt "Search: Visualize, Download, Create". Below the banner is a section titled "Featured Maps and Applications" with four cards: "Asphalt Plant", "Piedmont Quarry Viewer", "Tank Inspection", and "Realtime Awareness". Each card includes a thumbnail image and an "Explore" button. The "Business Units" section below lists various mining-related categories with icons: Exploration, Land, Health, Safety, Environment, Reclamation, Investor Relations, Operations, Mine Planning, and Facilities. The footer contains the ArcGIS logo, navigation links (Home, Catalog, Terms of Service, Privacy Policy, Contact Us), and the copyright notice "© 2020 ArcGIS for Mining".

ArcGIS Hub/ArcGIS Enterprise Sites

Open Data in Mining and Geology

- Data discovery platform with readily consumable map services
- Democratizing data access
- Leveraging ArcGIS technology

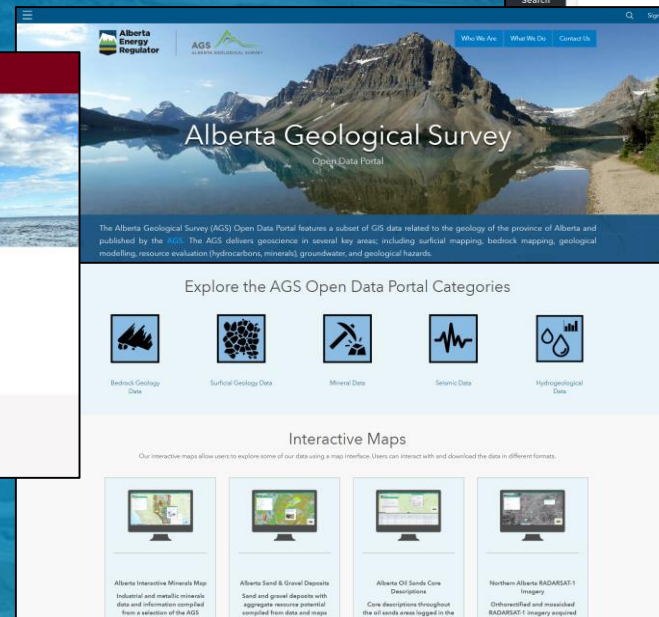
Peru INGEMMET Geoport



Queensland Government GeoResGlobe



Minnesota Geological Survey

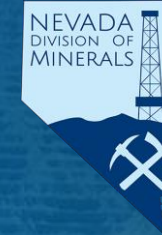


Alberta Geological Survey

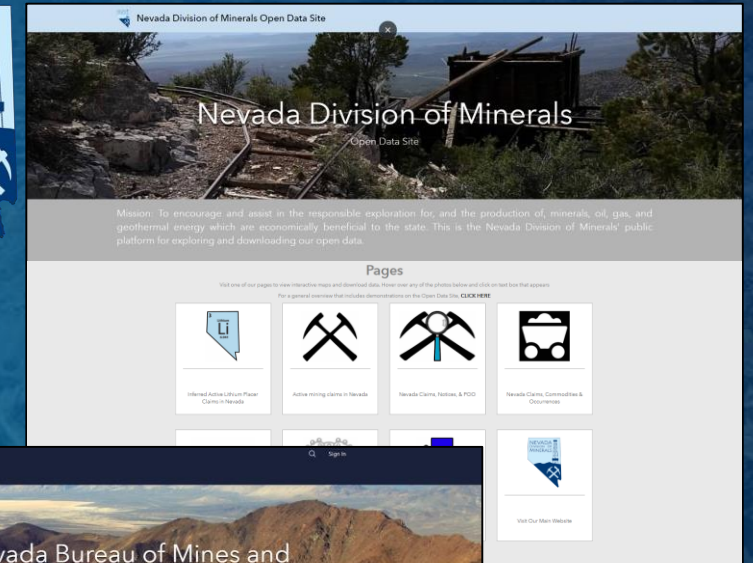
Nevada Open Data Initiatives and the Nevada Mineral Explorer



Nevada Mineral Explorer



NDOM Open Data



NBMG Open Data

***THE
SCIENCE
OF
WHERE***TM

Thank you!
Questions?



More Questions?

Contact us!

- **Contact Info:**
 - Peter Will: pwill@esri.com
 - Matt Ballard: mballard@esri.com
 - Rachel Micander: rmicander@unr.edu
 - Lucia Patterson: lpatterson@minerals.nv.gov
- **Esri UC:** esriurl.com/uc
- **Join the MUG on LinkedIn:** esriurl.com/MUGLinkedIn
- **Esri Mining GeoNet Forum:** esriurl.com/MiningGeoNet
- **Previous webinars are available here:** esriurl.com/MiningWebinars



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