

## Background Information

### Did You Know...?

#### WD Boyce – The Man Who Got Lost in the Fog

<https://scoutingmagazine.org/issues/0110/d-wwas.html>

#### Mining Around Philmont

Cypher's Mine Camp Profile

[https://filestore.scouting.org/filestore/philmont/pdf/jobs/Backcountry\\_Mining\\_Cyphers\\_Mine\\_HW.pdf](https://filestore.scouting.org/filestore/philmont/pdf/jobs/Backcountry_Mining_Cyphers_Mine_HW.pdf)

Baldy Mountain (Summitpost.org)

<https://www.summitpost.org/baldy-mountain-nm/151116>

Baldy Mountain (Wikipedia)

[https://en.wikipedia.org/wiki/Baldy\\_Mountain\\_\(Colfax\\_County,\\_New\\_Mexico\)](https://en.wikipedia.org/wiki/Baldy_Mountain_(Colfax_County,_New_Mexico))

### Information Sources for Requirement 3 – Hazards and PPE

Safety – Yesterday and Today

The Canary In The Coal Mine Isn't Ancient History - Forbes 2019

<https://www.forbes.com/sites/kionasmith/2019/12/31/the-canary-in-the-coal-mine-isnt-ancient-history/#17de227c4393>

The Human Element – Caterpillar Accident Prevention Safety Program (Video - 34 minutes)

<https://youtu.be/pVPYALwx5BY>

#### Health Hazards of Mining and Quarrying

<https://www.iloencyclopaedia.org/component/k2/item/610-health-hazards-of-mining-and-quarrying>

#### Mining health safety – 7 common risks to protect yourself against

<https://www.miningreview.com/health-and-safety/mining-health-safety-7-common-risks-to-protect-yourself-against/>

What are risks associated with mining?

<https://www.creativesafetysupply.com/qa/mining-safety/risks-associated-with-mining>

### Ground Rules – Mining Right for a Sustainable Future (Video – 22 minutes)

<https://youtube.com/cat-ground-rules>

### Monitoring, Robots and Technology

#### MSA Self-Rescuers

<https://us.msasafety.com/Air-Purifying-Respirators-%28APR%29/Escape-Respirators/W65-Self-Rescuer-Respirator/p/000270000500001501>

A Search-and-Rescue Robot System for Remotely Sensing the Underground Coal Mine Environment

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5677175/>

Development of Search-and-rescue Robots for Underground Coal Mine Applications

<https://dl.acm.org/doi/10.1002/rob.21501>

CMU team develops a robot and drone system for mine rescues

<https://techcrunch.com/2019/03/30/cmu-team-develops-a-robot-and-drone-system-for-mine-rescues/>

FULLY AUTONOMOUS DRONE COMING IN 2020 TO INCREASE UNDERGROUND SAFETY & OPERATIONS  
<https://www.respec.com/fully-autonomous-drone-coming-in-2020-to-increase-underground-safety-and-operations/>

The Encountered Problems and Solutions in the Development of Coal Mine Rescue Robot  
<https://www.hindawi.com/journals/ir/2018/8471503/>

**Mining Industry Gas Detection Systems & Equipment**  
<https://www.conspec-controls.com/gas-detection-mining-industry.html>

**Cat® Detect**  
[https://www.cat.com/en\\_US/by-industry/mining/surface-mining/surface-technology/detect.html](https://www.cat.com/en_US/by-industry/mining/surface-mining/surface-technology/detect.html)

Caterpillar's Mining Automation Journey (Video – 24 minutes)  
<https://www.youtube.com/watch?v=sMw5G8FSbdI>

#### **Information Sources for Requirement 4 – Abandoned Mines**

Abandoned Mines – Geology.com  
<https://geology.com/articles/abandoned-mines.shtml>

Stay Out Stay Alive: How BLM Closes Old Mines  
<https://bit.ly/stayalive-blm>

Stay Out – Stay Alive (MSHA)  
<https://www.msha.gov/sosa>

**Minerals Education Coalition - Mining in Society Merit Badge Resource Page:**  
<https://bit.ly/mis-mb>