



# SILVER CITY

## PROJECT PRESENTATION

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**DATE**

January 2020

**LOCATION**

Pennington County, SD



# **AGENDA**

ABOUT US

WHAT WE ARE DOING

THE WHY FACTORS

OUR PROJECT

LOOKING AHEAD

OUR MODEL

# NEW EYES ON OLD ROCKS

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WE ARE:

## THE NEXT GENERATION

We are forward-thinking entrepreneurs disrupting the status quo and leading by example with a sustainable approach built on integrity, authenticity, and responsibility.

## EXPLORER - SCIENTISTS

We are technical experts with a passion for geology, who utilize scientific, data-driven techniques to understand the story of how the Earth was formed at an elemental level.

## SOLUTION - DRIVEN

The global challenges we face today will be solved by deploying the technologies of tomorrow, and nearly all of these innovations require critical mineral resources to produce.

## ENVIRONMENTAL STEWARDS

While modern societies must utilize resources to live and progress, we believe their development can be achieved sustainably to minimize impact and ensure a safer, healthier, and happier future.

## SOCIALLY RESPONSIBLE

Rocks are our passion but people are the heart of our business. From our staff to suppliers, local communities and aspiring students, we work hard to help lift others through education, employment, and investment.

## VALUE CREATORS

Our drive to explore and solve tough problems is crucial to creating the value that powers human progress, enriches lives and improves society.



An American flag is planted in a field of tall grass. The sun is setting behind the flag, creating a bright glow and casting long shadows. The sky is filled with dramatic, dark clouds.

**F3** GOLD

**SUSTAINABLE**

MINERAL DEVELOPMENT


FOR

**AMERICAN MADE**

OPPORTUNITY & PROSPERITY





## COMPANY LEADERSHIP




**ROB BERGMANN**

PRESIDENT

**BRIAN LENTZ, CPG**

VICE PRESIDENT



## OUR EXPERIENCE

**12+**  
YEARS

Exploration  
& mineral  
development  
experience

**40+**  
PROJECTS

Exploration  
experience  
throughout  
N. America

**9+**  
INDUSTRIES

Active  
& diverse  
business  
growth

## HQ

Minneapolis, MN

## EXPERTISE

Mineral exploration

## TEAM COMPOSITION

Technical scientists  
Financial analysts  
Operation managers  
Senior leaders

## PROJECT TASKS

Global operations  
Complex logistics  
Large, diverse teams

## BUDGET MANAGEMENT

\$ M - MMM







**Au**

**Au**

**Au**

**Au**

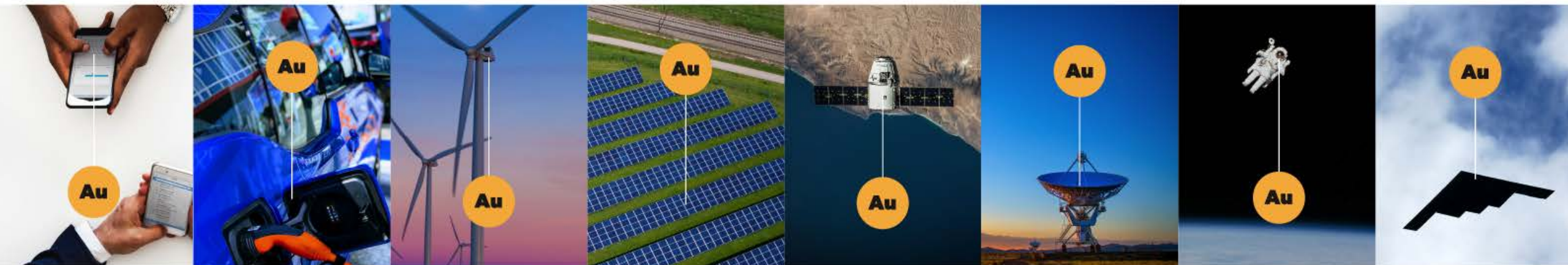
**Au**

**Au**

**Au** **Gold** IS  
EVERYWHERE



- 1 Gold is ***everywhere***.
- 2 Gold is ***strategic and critical*** to the future.



## KEY TAKEAWAY

Numerous applications in  
nearly every major U.S. industry



**AEROSPACE**



**DEFENSE**



**ENERGY**



**MOBILITY**



**TELECOM**





**EFFICIENT  
CONDUCTOR**



**HIGHLY  
DURABLE**



**CORROSION  
RESISTANT**



## CASE STUDY:

Global mineral supply chains

## PROBLEM:

Strategic vulnerability

## RISK RATING:



# WHY FACTORS

## INFOGRAPHIC:

iPhone supply chain snapshot



## QUICK POLL:

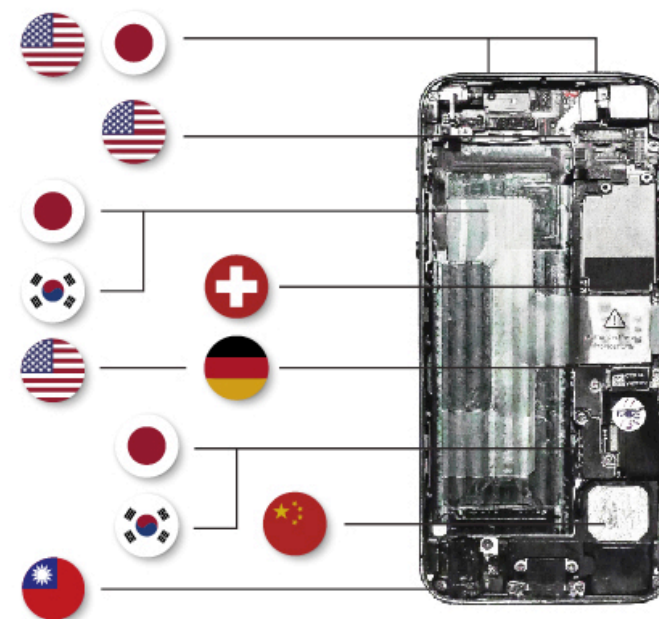
*DO YOU KNOW WHAT  
YOUR PHONE IS MADE OF?*

*DO YOU KNOW WHERE THE  
MATERIALS COME FROM?*

**7**  
COUNTRIES

**15+**  
MANUFACTURERS

**60+**  
MINERALS



## SOLUTION:

Develop responsible, sustainable, reliable domestic supply



## CONSULTING OPERATOR



### HEADQUARTERS

Minneapolis, MN

### EXPERTISE

Mineral exploration, boots-on-the-ground



**35+**  
STAFF



**15**  
SERVICES



**11**  
PROJECTS



**9**  
INDUSTRIES

## QUALIFICATIONS



**CERTIFIED**  
PROFESSIONAL  
GEOLOGISTS



## SAFETY RECORD



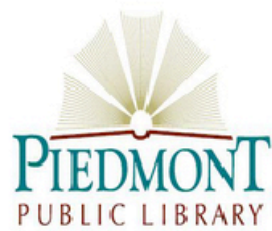
**HARM FREE**  
POLICY



**LOST TIME**  
**INCIDENTS**  
• SINCE 2010 •



**HAZARDS OR**  
**CITATIONS**  
• SINCE 2010 •





**CASE STUDY:**

Community partnership

**INVESTMENT:**

Program development, sponsorship

**IMPACT:**

Youth well-being, STEM education

**30****KIDS SPONSORED FOR SUMMER CAMP****12****WEEKS TEACHING GEOLOGY CURRICULUM****2+****YEARS  
& COUNTING!**

*"Partnerships are so important to the YMCA! The terrific financial support that we have received from F3 Gold and Big Rock Exploration has benefitted the Rapid City community, but more important has been their commitment to teaching kids at YMCA Giraffic Park."*

- Keiz Larson, COO of YMCA Rapid City





## TARGET:

Economic subsurface mineral deposit



## ACTIVITIES PERFORMED:

- Mapping the rocks and geology
- Collecting soil, rock and water samples for testing
- Creating maps and interpreting data
- Analyzing minerals through the microscope
- Compiling 3D, geostatistical and vector models
- Collecting geophysical data



## NEXT STEP:

Diamond core drilling

CONCEPT **EXPLORATION** DISCOVERY RESOURCE ASSESSMENT OPERATION CLOSURE REMEDIATION

## PHASE | CHRONOLOGICAL STEPS

1 IDENTIFY & SECURE LAND RESOURCES

2 PROSPECTING & GEOLOGIC ANALYSIS

3 ENVIRONMENTAL MANAGEMENT

4 INTERMEDIATE EXPLORATION

5 ADVANCED EXPLORATION

6 DISCOVERY & DEVELOPMENT

APPROXIMATE  
TIME SCALE

RELATIVE  
VARIABLE





# GOLD:

## A LONG ROAD TO DISCOVERY

### WHY THIS PROJECT?



Scientific clues  
indicate potential



Sustainable  
& low-impact



Domestic production  
boosts U.S. economy

### THE EXPLORATION TIMELINE

Identify &  
Secure Land  
Resources

Prospecting  
& Geologic  
Analysis

Environmental  
Analysis &  
Planning

Exploratory  
Core  
Drilling

**F3**  
CURRENT  
PHASE

## GOLD: A RARE FIND

Of all exploration worldwide,  
the likelihood of an economic discovery  
is **very low**.

TOTAL PROJECTS WORLDWIDE

DID YOU  
KNOW

LESS THAN

**0.1%**

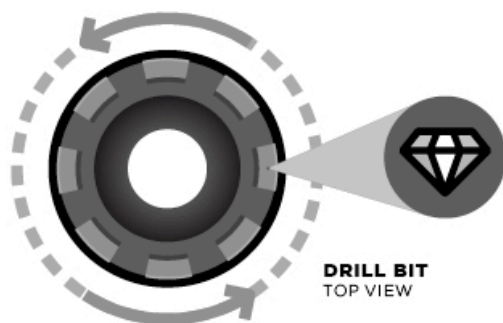
of prospected sites  
will lead to a  
productive mine.

However, by utilizing our new scientific  
theory, we believe we can. . .

## BEAT THOSE ODDS.



## WHO DOES THE DRILLING & WHY?



Diamond core drilling uses a cylindrical bit with embedded industrial diamonds, which rotates at the end of drill rod (or pipe). The opening at the end of the diamond bit allows a solid column of rock to move up into the drill pipe and be recovered at the surface without invasive digging.

## STRENGTH



## DURABILITY



## IMPACT



## WHO DOES THE DRILLING & WHY?

Geologists are essentially Earth detectives. They use science to uncover the story of how our planet was formed over billions of years, from stardust to the modern world we know today. One of their tools for gathering clues is exploratory core drilling. This precision sampling technique enables them to study rocks that are buried deep in the Earth and otherwise inaccessible to humans, with no excavation required.

## BY THE NUMBERS | EXPLORATORY DRILLING IN PRACTICE

A drill pad is the physical space occupied by all equipment, materials, and personnel needed to perform the exploration. For scale, the figure below illustrates the approximate size of a drill pad in comparison to a regulation soccer field.

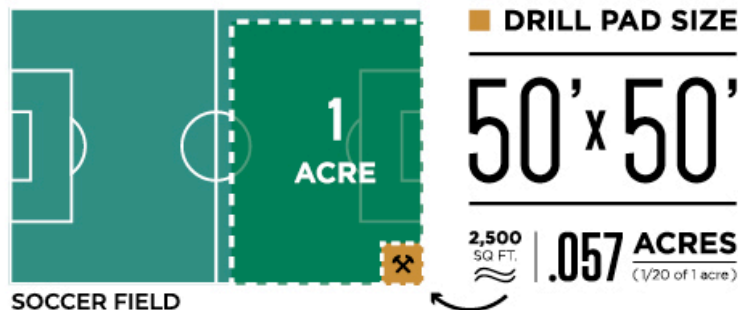


Fig. 1 : MN DNR: [https://files.dnr.state.mn.us/lands\\_minerals/mineral\\_faq/mn\\_minexpact.pdf](https://files.dnr.state.mn.us/lands_minerals/mineral_faq/mn_minexpact.pdf)

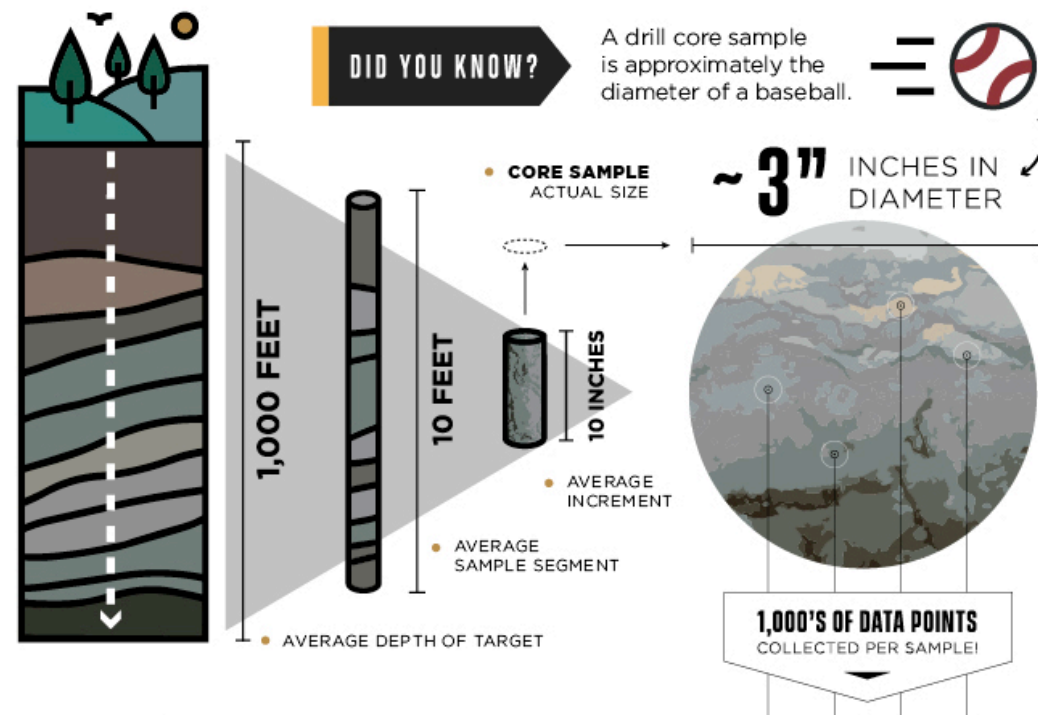
38.2  
DECIBELS\*

WITH PROPER NOISE MITIGATION  
AT 400 FEET AWAY  
CORE DRILLING  
IS ABOUT AS **LOUD** AS  
A KITCHEN FRIDGE.\*

100' 200' 300' 400'

500 FOOT BUFFER ZONE

Fig. 2 : IDEA Drilling: <https://www.ideadrilling.com/technical-sheets/>



# BIG DATA

## IN A SMALL PACKAGE

A technical team of geologists must gather numerous data points (clues!) and work to piece them all together in order to gain a full understanding of Earth's history as told by...

SD x US

1.8 BILLION  
YEAR OLD  
ROCKS!

## KEY DATA POINTS

- Lithology
- Alteration
- Rock quality (RQD)
- Geochemistry
- Mineralization
- Structure
- Geometry
- Fluorescence
- Photography





# EXPLORATORY DRILLING

## FACT SHEET

### WHY?



**CRITICAL  
SCIENTIFIC  
DATA**



**LOW-IMPACT,  
PRECISION  
TECHNIQUE**



**SHORT-TERM  
TEMPORARY  
FOOTPRINT**



**POTENTIAL  
ECONOMIC  
DISCOVERY**

### WHAT?



**POTABLE  
WATER**



**CLAY  
(BENTONITE)**



**STEEL  
PIPE**



**BIODEGRADABLE  
LUBRICANTS**

### HOW?



**COMPARABLE  
TO DRILLING A  
WATER WELL**



**LOW NOISE  
& DUST  
EFFECTS**



**NO TOXIC OR  
HAZARDOUS  
CHEMICALS**



**RECLAMATED  
TO ORIGINAL  
CONDITION**



**VISUAL TIMELINE** | A real-world example of exploration in Minnesota



**SITE AT PROJECT START**



**SITE DURING PROJECT**



**SITE CAPPED & RESEED**



**SITE AFTER 1 YEAR**





# SILVER CITY PROJECT APPROACH



Update geologic record by testing our new science suggesting undiscovered gold deposit

1



Conduct our work in socially, environmentally, and economically responsible manner

2



Partner with local citizens, groups and organizations for win-win opportunities

3



Discover a new economic gold deposit in the U.S.A.

4





In 1906, the **Crouch Line Railroad** was completed.

► This passage connected the mining town of Silver City to Rapid City, providing a vital route for travel and commerce.

## SILVER CITY HISTORY

### FOUNDED:

1876, by the Gorman Bros. originally as a mining camp

### EARLY GROWTH:

2 to 300+, by 1878 Silver City was a mining boom town

### MINING ACTIVITY IN PENNINGTON COUNTY:

143 years, 24,416 total claims, 664 mines\*

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### KEY TAKEAWAY:

Despite a presence since its founding, Silver City has been enriched **not** degraded by mining. It has helped to support and conserve the scenic resources that make it a multi-use, recreational paradise and global tourist draw to this day.



# SILVER CITY

## PROJECT OVERVIEW

### PHASE:

Exploratory drilling

### DURATION:

~ 1 year

### TOTAL FOOTPRINT:

3.8 acres

### STATUS:

State & federal compliant

### RISK RATING:



### IMPACT RATING:



### SUMMARY STATEMENT:

This is an exploration project using precision, low-impact diamond core drilling to test scientific theories at depth & determine the potential for an economic gold deposit.

## KEY FACTS

ABOUT OUR ACTIVITIES

**NO**

MINING, MILLING,  
OR PROCESSING

**NO**

EXCAVATION,  
DREDGING, SUMPS,  
OR CONSTRUCTION

**NO**

WATER EXTRACTION,  
FROM RAPID CREEK  
WATERSHED

**NO**

HAZARDOUS CHEMICALS  
OR TOXIC SUBSTANCES

## EXPLORATORY DRILLING PHASE

### PROCEDURAL CHECKPOINTS



### PERMITTING

#### PERIOD:

~ 12 - 24 months

#### KEY STEPS:

Application  
N.E.P.A. study  
Environmental analysis



### ACTIVITIES

#### PERIOD:

~ 12 months

#### KEY STEPS:

Site setup  
Drilling  
Site breakdown



### RECLAMATION

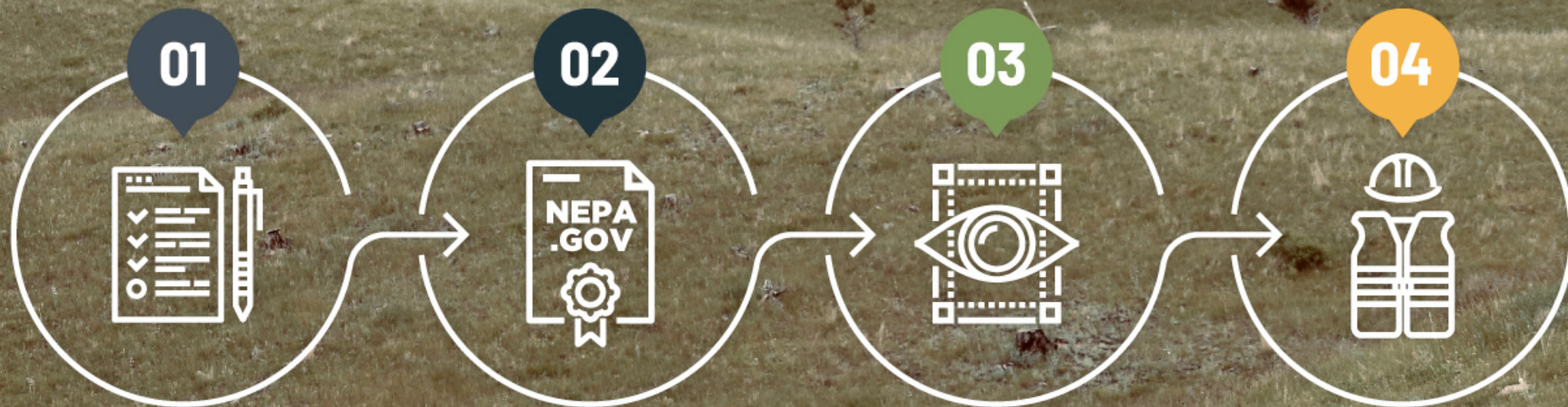
#### PERIOD:

~ 6 months upon completion

#### KEY STEPS:

Clean-up  
Capping  
Reseeding





**Application**

**NEPA\* Review**

**Environmental Analysis**

**Commence Drilling**

\*National Environmental Policy Act



PROJECTED IDEAL TIMELINE 12 - 24 MONTHS



# F3 ENVIRONMENTAL MANAGEMENT PLAN

COMPREHENSIVE • TRANSPARENT • RESPONSIBLE

## VISION STATEMENT:

F3 Gold strives for the highest standard of ethical integrity in mineral exploration. By prioritizing a stringent environmental review process and ensuring our operations not only meet but exceed regulatory standards, we are leading by example on a sustainable path to a future that values the long-term well-being of all stakeholders.



### Air Quality

No burning or burn permit  
in proposed operations

All vehicles will comply  
with exhaust regulations

All vehicles operated to  
limit dust dispersion

Noise will be controlled and  
abated to limit disturbance



### Water Quality

No drilling activity in  
Madison or Minnelusa aquifers

No extraction from  
Rapid Creek watershed

Clean potable municipal  
water source

Used water is monitored  
and recycled



### Ecological Conservation

No timber harvesting;  
only minimal brush cutting

Buffer zones implemented  
to minimize disturbance

Small staging areas along  
roadways to limit obstruction

No known risks or dangers  
to wildlife



### Land & Scenic Resources

On-the-ground verification  
of drill pad placement

All proposed operations  
are outside registered cultural sites

500 ft. buffer zone established  
from any registered cultural sites

All sites coordinated with  
U.S.F.S. to ensure protection



### Waste & Materials

Operations plan to minimize  
overall waste stream

All waste will be safely stored  
and disposed of routinely

No hazardous materials  
or toxic substances

Fuel and lubricants stored  
are EPA SPCC compliant





## AIR & NOISE STEWARDSHIP

### IMPACT STATEMENT:

Our project planning and execution always considers the concerns of those who live, work, and play nearby. We set a 'do no harm' standard that guides our decision-making to ensure our work poses no detriment to persons or property.



ASSESSMENT, COMPLIANCE & PERMITTING BY  
United States Forest Service

RECLAMATION COMPLIANCE ASSESSMENT BY:  
Department of Environment and Natural Resources

INDEPENDENT THIRD-PARTY VERIFICATION BY:  
Barr Engineering

**F3** **GOLD**

Learn more at: [www.F3Gold.com](http://www.F3Gold.com)





# WATER

## STEWARDSHIP

### IMPACT STATEMENT:

We recognize and acknowledge the criticality of water to the health and way of life for the Black Hills. We would not commence with any project that risks the integrity and long-term viability of regional water sources.



ASSESSMENT, COMPLIANCE & PERMITTING BY  
United States Forest Service

RECLAMATION COMPLIANCE ASSESSMENT BY:  
Department of Environment and Natural Resources

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Barr Engineering

# F3 GOLD

Learn more at: [www.F3Gold.com](http://www.F3Gold.com)





## ECOLOGICAL STEWARDSHIP

### IMPACT STATEMENT:

As scientists who spend countless hours in nature, our love of wild spaces goes beyond our work. We're avid outdoorsmen & outdoorswomen with a strong ethos of conservation and committed to ensuring healthy ecosystems for all to enjoy.



ASSESSMENT, COMPLIANCE & PERMITTING BY  
United States Forest Service

RECLAMATION COMPLIANCE ASSESSMENT BY:  
Department of Environment and Natural Resources

INDEPENDENT THIRD-PARTY VERIFICATION BY:  
Barr Engineering

**F3** **GOLD**

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# LAND USE STEWARDSHIP

## IMPACT STATEMENT:

The Black Hills are a beautiful home to many South Dakota residents, a cultural gem for the country, and a major draw for numerous recreational uses and tourism. We respect the regional way of life and intend to keep it that way.



ASSESSMENT, COMPLIANCE & PERMITTING BY  
United States Forest Service

RECLAMATION COMPLIANCE ASSESSMENT BY:  
Department of Environment and Natural Resources

INDEPENDENT THIRD-PARTY VERIFICATION BY:  
Barr Engineering

**F3** **GOLD**

Learn more at: [www.F3Gold.com](http://www.F3Gold.com)





# MATERIALS STEWARDSHIP

## IMPACT STATEMENT:

By nature the exploration process is low impact and low risk because it is not materially intensive, and the materials used are not hazardous to the health of the environment, animals, or people.



ASSESSMENT, COMPLIANCE & PERMITTING BY  
United States Forest Service

RECLAMATION COMPLIANCE ASSESSMENT BY:  
Department of Environment and Natural Resources

INDEPENDENT THIRD-PARTY VERIFICATION BY:  
Barr Engineering

# F3 GOLD

Learn more at: [www.F3Gold.com](http://www.F3Gold.com)



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**We are an  
exploration  
company,  
not a mining  
company**

—

—

**Safety and  
sustainability  
are our  
foremost  
commitment**

—

—

**Our approach  
makes us one of  
the most qualified  
explorers in  
the Black Hills**

—



QUESTIONS, COMMENTS, INFORMATION? PLEASE GET IN TOUCH!



**[www.F3Gold.com](http://www.F3Gold.com)**



**[info@F3Gold.com](mailto:info@F3Gold.com)**

