Active Gold Exploration in Minnesota's Greenstone Belts

**Land Available**  **Known Gold Mineralization**  **High Gold Potential**

**Known Gold Mineralization**
- Bedrock Geology: Marbles, metavolcanics, felsic and mafic intrusive rocks, metasedimentary rocks, and carbonate rocks.
- High-grade gold mineralization in the Vermilion and Virginia district.
- Exploration targets include porphyry, quartz veins, and disseminated gold deposits.

**High Gold Potential**
- New semi-quantitative XRF spot gold concentrations (ppm) in drill core from a granite-greenstone terrain near International Falls. The XRF analyses were done in 2010 by ASX.

**State Land Available for Exploration**
- Area under consideration for 2011 lease sale.
- Active State metallic mineral lease.
- Areas ever offered as State mineral lease.

**Bounding Features (Map A & B)**
- Exploration areas (1-6)
- Public land survey townships
- Public land survey sections

**Bedrock Geology (Map A & B)**
- Archean Superior Province
- Proterozoic Superior Province

- Mafic intrusion
- Intrusive to felsic intrusive
- Metamorphic and sedimentary rocks
- Metasedimentary rocks
- Metamorphic rocks
- Metamorphic rocks

**Drill core from the Bigfork West Exploration Area**
- Gold-bearing Iron Formation with 5.3 gpt/5 ft.

**Vermilion District Area**
- See enlarged Vermilion District Area (Township 6-6-5 Range 15-15)

**Virginia Horn Area**
- See enlarged Virginia Horn Area (Township 5-5-15 Range 15-15)

**Public land survey sections**
- Township 5-5-15 Range 15-15
- Township 6-6-5 Range 15-15

**Incorporated**
- Vermilion Gold LLC
- Vermilion Gold Inc.

**Base Maps**
- 1:500,000 (MGS)
- 1:1,000,000 (OGS)

**Printed Map Scale**
- 1:12,000,000

**After Jirsa et al. (2010), OGS (1993, 2010)**
- Bedrock Geology Base Maps: 1:500,000 (MGS)/1:1,000,000 (OGS)
- Minnesota, U.S.A.
- Printed Map Scale: 1:12,000,000