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# Unplanned Detonation

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CAGC SAFETY ALERT

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# Safety Alert

05-02

## Sequence of Events

On February 27, 2002, at approximately 14:45, a drilling crew experienced an unplanned detonation while loading a 1/8 kg charge in a shallow hand auger hole. The project location is on the Siksika Reserve, approximately 90 km east of Calgary. The drill crew was using hand auger type drills to drill two-meter holes. The hand auger location was adjacent to the Bow River. Drilling and loading was very difficult, as the formation consisted of loose conglomerate riverbed type material.

In the process of loading the hole, an obstruction was encountered at 2 feet. While attempting to push the charge past the obstruction, a detonation occurred. The force of the detonation was in an upward direction, exiting from the side of the collar. The loader and two drillers were sprayed with rocks and debris and injured.

The crew had a Mobile Medical Treatment Centre on-site and response time to the injured was approximately 10 minutes. Supervisory personal followed Emergency Response Procedures and had Paramedics on site within 15 minutes. The injured were evacuated and transported to Strathmore Hospital and Calgary Foothills Hospital.

## Possible Cause

1. Dynamite and/or detonator impact;
2. R.F. energy, one driller had a hand held radio within the 20-foot boundary. No deliberate transmission took place during the loading procedure.

## Recommendations to Prevent Recurrence:

1. At all times, avoid any excessive force while loading holes;
2. All employees must ensure that all radios, cell phones or any other communication devices are kept the minimum distance or further from detonators as per IME guidelines.

Investigation has been done and is ongoing by Alberta Workplace Health and Safety, explosives manufacturer's experts and the Geophysical contractor. Additional information will be forwarded as it becomes available.