

GPR Application: LOCATING UNMARKED BURIALS

CLASS

During the fall of 2021 GSSI hosted a cemetery mapping training class in Calgary, Alberta focusing on GPR method & theory for archaeological data acquisition and processing.

SURVEY

Two grids were collected in the pauper section of the St. Mary's cemetery with permission from the City of Calgary. The burials located in this section of the cemetery were exhumed and reburied in the late 1800's, but the exact locations and nature of the burials are unknown.

The east grid (Grid 1) measured 19m by 28m. The west grid (Grid 2) measured 12m by 27m. 25cm interval survey lines were collected in E-W to crosscut as many burial sites as possible, as head and foot stone markers from other areas of the cemetery indicted the orientation of the graves to be N-S.

EQUIPMENT:

Antenna: GSSI 350 MHz HyperStacking® antenna

Grid 1 Control Unit: Zebra Tablet w/UtilityScan UI

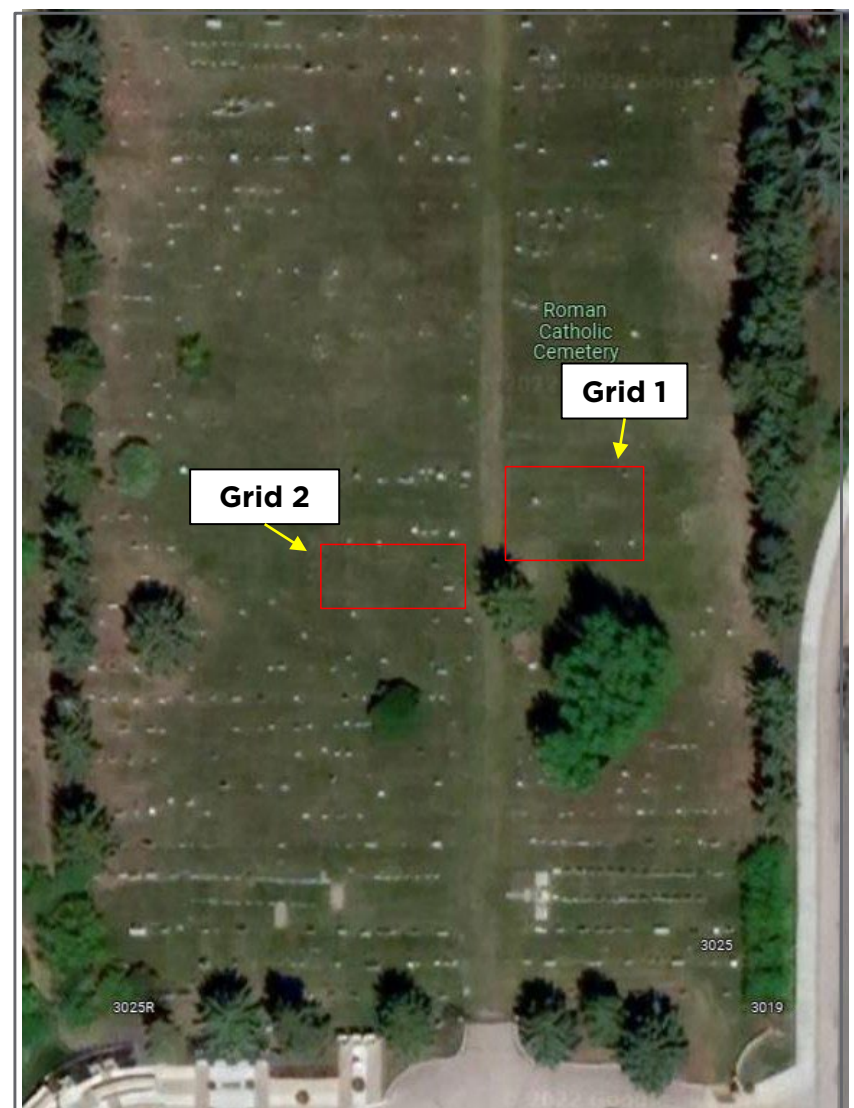
Grid 2 Control Unit: SIR® 4000

PARAMETERS (Grid 1):

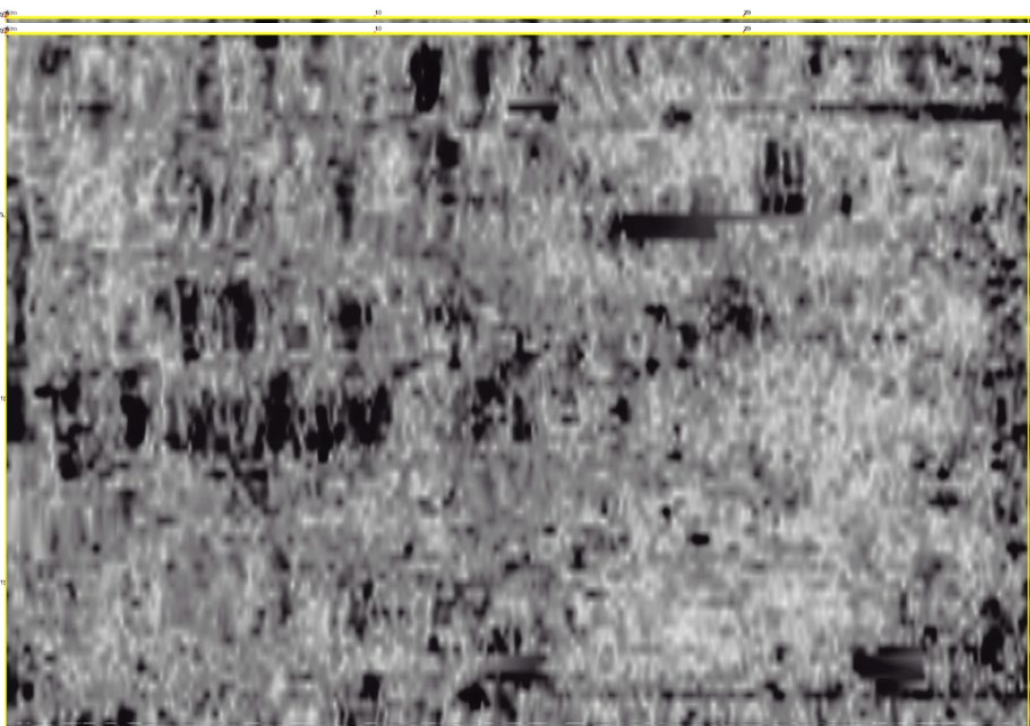
- Scans/Sec: 250
- Scans/Unit (m): 100
- Samples/Scan: 512
- Range (ns): 79.7

PROCESSING HISTORY (Grid 1):

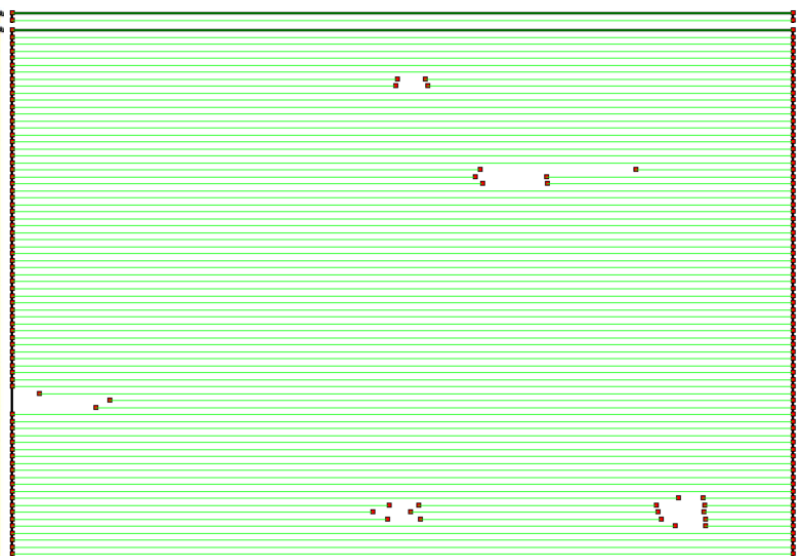
- Position Correction: Shift: -7.94 ns
- Exponential Range Gain
- IIR Filter: Vertical High Pass: 300 MHz
- FIR Filter: Horiz. Background Removal: Length (Scans): 2001
- FIR Filter: Stacking: Length (Scans): 7
- Migration



St. Mary's Cemetery, Ertlon St SW, Calgary, AB, Canada.
(Image from Google Maps)



Grid 1 Data, 60 – 80cmbs. St. Mary's Cemetery,
Ertlon St SW, Calgary, AB, Canada. (Produced in RADAN® 7)



Grid 1 Profile Location Map, St. Mary's Cemetery,
Ertlon St SW, Calgary, AB, Canada. (Produced in RADAN® 7)