

LINE ALERT CASE STUDY

- Date: June 2007
- Location: Southeast Saskatchewan, Canada
- Job Type: Sewer & Water Tie-In
- Soil Type: Type C
- Crossing Type: Sewer & Water Mains
- Facility Depth: Approximately 108"
- Results: These results reflect the results of several excavations occurring in the same vicinity over two days of construction. The soil condition was very wet. Combined with the depth of the lines it was difficult to obtain confirmation measurements near the line due to constant sluff in. Prior crossings were completed without LINE ALERT and with an average exposure time of 2.5 hours. LINE ALERT was installed immediately following line confirmation with a Hydrovac as the hole would fill with water relatively quickly after Hydrovac operations were completed. Excavation began immediately following installation with the panel being encountered and shearing properly. The approved no dig zone was 14" from the line. Excavation stopped at the 14" mark taking a total of 15 minutes on average. Manual excavation proceeded and the lines were fully exposed in times ranging from 1.5 hours to 1.75 hours. This represented time savings of 30%-40% than crossings performed without LINE ALERT.
- Safety Benefits: On average, almost one hour of manual digging in the heavy wet soil conditions was avoided reducing the risk of strain and other possibly injuries to labourers. Time savings were caused by not having to constantly manually reconfirm the line depth and being able to get to a safe distance to the line quickly due to knowing the actual distance from the line.
- Clear indications of the depth of the line allowed for safe mechanized excavation to the no dig zone.
- Financial Benefits: On average, almost one hour of excavator/operator costs and two labourers hourly wage.