Client:	**Private Individual**		
Location:	Edmonton, Alberta	**Project start date:**	Jun. 2001
Project Type:	Geotechnical Investigation	**Project end date:**	Aug. 2001
Project Value:	$23,400	**Project Manager:**	M. McCormick

Project Title: **Geotechnical Top of Bank Investigation**

Project Description: Nichols Environmental was retained to investigate the slope stability of a proposed residential development in northeast Edmonton. The scope of work included historical review, soil stratigraphy and slope stability analysis, and geotechnical recommendations for foundation design and construction. The final recommendation was that the site was adequate; however several restrictions were placed on the proposed development.

Nichols Environmental was retained to investigate the slope stability of a proposed residential development in northeast Edmonton. The east side of the development is bordered by a ravine valley and the south side is bordered by the North Saskatchewan River Valley. Recommended development setback distances were to be provided, along with pertinent construction recommendations.

The geotechnical top of bank investigation included a historical review of reports, documentation, and aerial photography; drilling of two (2) boreholes to determine soil stratigraphy and soil properties; and a slope stability analysis. The slope stability analysis was conducted using primarily the information gathered from the borehole testing and laboratory data.

Nichols Environmental concluded that the property can be developed for residential purposes provided that adequate restrictions are placed on building locations and drainage issues are addressed. A Building Setback Line was established and ranges from 10 to 18m along the ravine slope and 30 to 33m along the river valley slope. A Development Restriction Line was also established, at 7.5m from the Building Setback Line towards the top of bank. Further restrictions are placed upon underground sprinklers and ponds, walkways, and the use of heavy equipment.