PROJECT SUMMARY

KOOTENAY RIVER MONITORING SURVEY

(including overbank XS A - F)

Project 86-RPP-1

Requested By: Rivers Section - J. Wester

Survey Date	Personnel	Vehicles
October 6 - 14, 1986	M. Pronk, J. Duncan, R. Barclay	WI742, EV995

Field Time: 35.5 man-days (247.5 hours)
Office Time: (243.5 hours)

On the afternoon of October 6, at completion of Chute Lake survey, crew left for Creston via Kelowna with an overnight stop in Grand Forks at the Imperial Inn. On October 7, travelled to Creston and arranged lodging at the City Center Motel, crew off remainder of day. Field survey October 8 - 13, crew returned to Victoria on October 14.

Weather - mainly sunny, early morning fog with highs of 14°C.

Launched Valco and Gregor boats at old west Creston ferry site on right bank Kootenay River.

Met with A. Brown who borrowed Gregor boat with related equipment to inspect Kootenay River banks in project area on October 8 - 9. After which he requested 6 additional overbank cross sections on left bank of Kootenay River between permanent XS15 and XS16.

Encountered problems with boat equipment:

a) Valco - considerable water leakage from rivet seams and shifting control linkage jammed.
b) 25 HP Mercury - low speed idle repaired in Creston, later water pump non-operative.

Started survey using Valco (XS1 - 14) then Gregor with 25 HP Mercury (XS15 - 18) and finished survey using Gregor with 10 HP Mercury. This made travelling with 3 people and equipment rather slow.

At XS19, the relative accuracy of sounding fixes with total station was made by comparing the water portion of section run from right to left and left to right. After compilation of data, the plots were overlayed and the comparison proved quite similar.

1. Field Survey

   a) C/L river profile - international border at Porthill, Idaho to Kootenay Lake.
   b) Resurvey of permanent cross sections 1- 25.
   c) Additional 6 overbank sections A - F on left bank Kootenay River between XS15 and 16 (referenced at each section with a rebar on left bank).

2. Survey Data

   a) Horizontal and vertical control for overbank sections established by E.D.M. Traverse using a total station Theodolite, Model 140H. Cross sections 1 - 25 control established from previous surveys.
   b) Cross section topography obtained with a total station Theodolite, Model 140H (using Geodat 124).
   c) Subaqueous depths obtained with echo sounder, Model DE719B.

3. Datum

   a) Horizontal and vertical control is based on monumentation at cross sections 1 - 25 established by Water Management Branch in 1968.
   b) Coordinates are Universal Transverse Mercator, Zone 10, Central Meridian 123 degrees.
   c) Elevations are in metres and are referred to Geodetic Survey of Canada datum.

4. Field Books

   Survey data is recorded on disc labelled 2384D and Field Book 2384F.

5. Compiled cross section data with plots XS1 - 25 and overbank XS A - F (scale H1:500 V1:200).

6. Compiled 8 drawings #A5181-3.5 sheets 1 - 8 Kootenay River Monitoring Survey 1986 cross sections (scale H1:500 V1:200).

7. C/L river profile - no compilation of field data (soundings chart only) as discussed with Mr. A. Brown.