

YUKON WATER BOARD

Pursuant to the *Waters Act* and *Waters Regulation*, the Yukon Water Board hereby grants a Type B water use licence for placer mining undertaking to:

Tatlow Placer Mines Ltd.
Box 438
Dawson City, YT Y0B 1G0

LICENCE NUMBER: PM03-332

LICENCE TYPE: B

UNDERTAKING: PLACER

WATER USE AREA: 02

STREAM CLASSIFICATION: IV A/B

LOCATION: Latitude: 63° 48' N

Longitude: 139° 04' W

WATER SOURCE: Quartz Creek, a tributary of the Indian River, Canyon Creek a tributary of Little Blanche Creek, Little Blanche Creek, a tributary of Quartz Creek and the Indian River, a tributary to the Yukon River

MAXIMUM QUANTITY: 15,003 cubic metres per day

EFFECTIVE DATE: May 2, 2005


EXPIRY DATE: May 1, 2014

This Licence shall be subject to the restrictions and conditions contained herein and to the restrictions and conditions contained in the *Waters Act* and the *Waters Regulation* made thereunder.

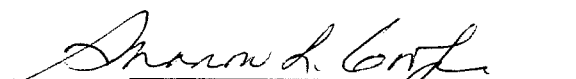
This Licence is a renewal of licence number PM95-070.

Dated this 2nd day of

December, 2004


Witness

Approved by:


Chairperson
YUKON WATER BOARD

PART A DEFINITIONS

"Act" means *Waters Act* and any amendments thereto.

"Area A" means Quartz Creek on and downstream of grant (claim) P24788.

"Area B" means Quartz Creek on and upstream of grant (claim) P24789.

"Area C" means Little Blanche Creek on and downstream of grant (claim) P12307.

"Area D" means Little Blanche Creek on and upstream of grant (claim) P12308.

"Area E" means Canyon Creek.

"Area F" means the Indian River

"Application" means application for water use licence PM03-332, and placer mining land use approval AP03332 and any subsequent information presented to the Yukon Water Board, up to the date of the Board's decision.

"Board" means the Yukon Water Board.

"Diversion" means any direct or indirect alteration of a portion or all of the water flowing in the route, bed, bank or boundaries of a river, stream, lake or watercourse.

"Spring Freshet" means the sudden increase in flow carried by a stream as snowmelt occurs at higher elevations in the watershed.

"Inspector" means any person designated as an Inspector under the Act.

"Instream Reservoir" means any water impoundment structure, where water is collected and retained for use, which is constructed in a natural channel or in a diversion, and through which the entire creek flow may be directed at any time.

"Instream Settling Facility" means a water impoundment structure, pond, or series of ponds where effluent is collected and retained for treatment, which is constructed in a natural channel or in a diversion and through which the entire creek flow may be directed at any time.

"Regulation" means the *Waters Regulation*.

"Natural Boundary" means the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water is so common and usual and so long continued as to mark upon the soil of the bed of the lake, stream or other body of water a character distinct from that of the banks thereof, both in respect to vegetation and in respect to the nature of the soil itself. In addition, the best estimates of the edge of dormant or old side channels and marsh areas are considered to be natural boundaries.

"Watercourse" means any stream, lake, pond, river, creek, spring, ravine, or swamp whether ordinarily containing water or not.

"Work Area" means any area disturbed and/or altered by mining activities, excluding any stable diversion channel.

PART B WATER USE AND WASTE DEPOSIT

1. The Licensee is hereby authorized:
 - a) to obtain water from Quartz Creek, Little Blanche Creek, and Canyon Creek at a maximum combined quantity of 15,003 cubic metres per day; and
 - b) to use this water for a placer mining undertaking on the following grant numbers as shown on Appendix A, attached; and
 - c) to return a flow of water to Quartz Creek, Little Blanche Creek, Canyon Creek and the Indian River, and to deposit waste into Quartz Creek, Little Blanche Creek, Canyon Creek and the Indian River; and
 - d) to construct Instream Reservoirs on Canyon Creek, Little Blanche Creek and upper Quartz Creek; and
 - e) to construct Instream Settling Facilities on Quartz Creek, Canyon Creek, and Little Blanche Creek; and
 - f) to construct stream channel Diversions on Quartz Creek, Canyon Creek and Little Blanche Creek;

as described in the Application and subject to the conditions of this licence. Where there is a discrepancy, between the Application and this licence, the conditions of this licence shall prevail.
2. The Board has relied on the representations, warranties and undertakings provided by the Licensee in the material filed in the Application. Such representations, warranties and undertakings are considered by the Board to be a part of the licence, but shall be subject to, and may be modified by, the conditions of the licence.
3. All work authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.
4. Effluent Quality Standard: Any grab sample at the point of discharge from the final settling facility shall not exceed settleable solids of 5.0 millilitres per litre above levels in the stream immediately above the uppermost mine operation.

5. Except as otherwise provided in this licence, the Licensee shall not deposit or permit the deposit of waste containing:

- a) anything toxic to fish;
- b) floating solids;
- c) visible oil or grease; or
- d) a total concentration of mercury in excess of 0.005 milligrams per litre

into a receiving stream, or in any place, under conditions where such waste, or any other waste, that results from the deposit of such waste, if resulting waste contains any of the items prohibited by this paragraph, may enter the receiving stream.

6. If, subsequent to the issuing of this licence, the Licensee uses water and/or deposits waste in one or more ways not authorized in this licence, and the combined effect of those uses and/or deposits of wastes, as determined by an Inspector:

- a) has no potential for significant adverse environmental effects;
- b) does not interfere with existing rights of other water users or waste depositors; and
- c) satisfies the criteria set out in column 2 of Schedule 6 of the Regulation;

no amendment to this licence will be required for that use of water and/or deposit of waste.

7. Fuels, lubricants, cleansers, solvents, and similar chemicals or substances shall be used, transported, stored and disposed of in such a way that said substances are not deposited in or allowed to be deposited in waters.

PART C MINING ACTIVITIES

8. Instream Reservoirs, Instream Settling Facilities and stream channel Diversions may be constructed in Areas A, B, C, and E.

9. The Instream Reservoirs, Instream Settling Facilities and overflow spillways shall be constructed and maintained to withstand and convey at least a 1:2 year flood flow.

10. Except as otherwise provided in this licence, the Licensee shall not construct stream channel Diversions.

11. The existing banks on the Indian River within the grant area shall be repaired to prevent erosion of the banks.

12. The Licensee may construct an intake ditch to an out of stream pump pond/reservoir.

13. Cross valley dams may be constructed. The maximum height of the cross valley dams shall not exceed 1.5 metres in height when measured on the downstream side.

14. Canyon Creek, Little Blanche Creek and Quartz Creek may be used as a conduit to transport effluent to the settling facilities at the mouth of Quartz Creek.
15. Canyon Creek, Little Blanche Creek and Quartz Creek may be used as a conduit until July 25 each year to transport hydraulic effluent to the settling facilities.
16. The Licensee shall provide barriers consisting of fish guards, screens, coverings or nets on all water intakes from Areas A and C as follows:
 - a) Screens or nets shall have a minimum of 3.5 openings per centimetre and openings no greater than 3.2 millimetres along any given side.
 - b) If a punch plate or similar material is used, openings shall be no greater than 3.2 millimetres in length or width.
 - c) There shall be no less than 929 square centimetres of open screen area for every 205 litres per minute being withdrawn.
 - d) The barriers shall be monitored and maintained to ensure that they function effectively at all times when water is being withdrawn.
 - e) The barriers shall be designed and installed in such a manner that the screen is submerged and a uniform flow is maintained through the total screen area.
 - f) Water shall not be withdrawn when the barrier is removed for renewal, repair or inspection.
17. The Licensee shall cease pumping or decanting and take remedial action if there is alteration to the bed or bank of the water channel.
18. All instream earthworks, diversions, ditches, spillways and any other water related structures built or otherwise constructed for the storage or conveyance of water shall be able to withstand seasonal floods.
19. All storage and settling facilities and associated spillways, drains and water supply ditches located outside the stream channel shall be of adequate capacity and construction.
20. All works associated with the undertaking, including, but not limited to, all dams, weirs, spillways, stream crossings, ditches, gates, water intakes, culverts and settling facilities shall be maintained in good repair.
21. A protective berm shall be constructed and maintained along the stream channel Diversions.
22. Settling facilities shall be provided for all mining Wastewaters.

23. Available overburden shall be stockpiled for use in future site restoration and such stockpiles shall be located where they will not adversely affect water quality in any Watercourse.

PART D WATERCOURSE CROSSINGS

24. The Licensee may modify the bed or banks of streams to allow fording of the stream. The number of fords shall be limited to those shown in the Application.
25. The Licensee shall adhere to the following conditions regarding fording of the creek channels:
 - a) All crossings shall be at a right angle to the stream.
 - b) Removal of vegetation adjacent to the crossings shall be minimized.
 - c) Non-erodible materials shall be placed up the bank on both sides of the crossing to stabilize the banks.
 - d) The stream crossing approaches shall be low and stable enough to support the vehicles and equipment.
 - e) The stream shall be crossed on either a firm rock bottom or a coarse gravel bottom.
 - f) Equipment crossing the streams shall be mechanically sound and free of leaks.
 - g) The blade or bucket on equipment shall be left in a raised position when crossing the streams.

PART E DIVERSION/CHANNEL CONSTRUCTION AND RESTORATION

The Licensee shall adhere to the following conditions regarding construction of all Diversions, redirection of the Watercourse into the original channel and restoration:

26. The Diversion channel width shall be no less than 4.5 metres in Area A and B, no less than 7.5 metres in Area C and no less than 2.5 metres in Area E.
27. The Diversion channel depth shall be no less than 1.5 metres in Area A and B, no less than 1.6 metres in Area C and no less than 1.4 metres in Area E.
28. The Diversion channel grade shall be between 0.0% and 5.0% in Area A and B, between 0.0% and 2.0% in Area C and between 0.0% and 3.0% in Area E.
29. The bed and banks of the Diversion channel shall be left in a stable condition.

30. The bed and banks of any tributary (gulch or pup) of Canyon Creek, Little Blanche Creek and Quartz Creek, shall be left in a stable condition.
31. Class III armouring shall be used, as directed in Schedule I.
32. Structures such as boulder groupings or rock islands shall be provided and spaced no further than 42 metres apart in Area A and 90 metres apart in Area C.
33. Topsoil and organic overburden or fines from washed tailings shall be spread on the graded areas on both sides of the restored channel in Areas A and C.
34. Active re-vegetation measures are required on at least one side of the restored channel in Areas A and C.
35. The streamside shall be left in such a manner so that erosion is controlled and re-vegetation is possible in Areas A and C.

PART F SEASONAL CLOSURE

The Licensee shall comply with the following conditions pertaining to seasonal closure:

36. The mine site shall be left in a stable condition at the end of each mining season.
37. An Inspector shall be contacted not less than 2 weeks prior to seasonal closure.
38. To prevent flood damage during freshet, the intake ditch to the water reservoir shall be blocked, instream dams and dikes shall be breached, and the Diversion ditches shall be constructed and maintained to withstand and convey flood flows.
39. Prior to seasonal closure, and in order to prevent flood damage during freshet, the Licensee shall:
 - a) Temporarily prevent water from entering the Instream Settling Facilities; then
 - b) Draw off or otherwise remove the water from the Instream Settling Facilities; then
 - c) Mechanically remove accumulated sediment from the Instream Settling Facilities; then
 - d) Open all dams and dikes so as to ensure unrestricted creek flow.
40. Any material that is removed from the settling facilities shall be stockpiled at a location and in such a manner so as to not affect water quality in any watercourse.
41. Spring Freshet may be routed through Work Areas. When Spring Freshet is routed through work areas the effluent standard of 5.0 millilitres per litre of settleable solids

must be met. Where Diversion channels around Working Areas are built or excavated, they shall be open in preparation for spring Freshet.

42. All mined or otherwise disturbed ground surfaces, including cut banks, fill slopes and tailings piles, shall be stabilized annually to prevent erosion and surface runoff from carrying sediment into adjacent Watercourses.

PART G DECOMMISSIONING

Prior to final decommissioning and/or expiry of this licence, the Licensee shall:

43. Ensure that the final creek channel approximates its pre-licence condition in length, gradient and stability, except as may otherwise be required in this licence; and
44. Prior to final decommissioning of the instream settling facilities, the Licensee shall:
 - a) Temporarily prevent water from entering the instream settling facilities; then
 - b) Draw off or otherwise remove the water from the instream settling facilities; then
 - c) Mechanically remove accumulated sediment from the instream settling facilities; then
 - d) Re-contour the existing pond walls; then
 - e) Open all dams and dikes so as to ensure unrestricted creek flow.
45. Any material that is removed from the settling facilities shall be stockpiled at a location and in such a manner so as to not affect water quality in any watercourse.
46. Ensure that all dams and dikes across stream channels are removed; and
47. Contact an Inspector not less than 2 weeks prior to final decommissioning.

PART H REPORTS, SAMPLING, & ANALYSIS

48. Where there is a surface discharge from the settling facilities, the Licensee shall take weekly samples at a point upstream of the water supply intake and at the point of discharge from the final Settling Facility, and shall analyze these samples for settleable solids, using the Imhoff cone 1 hour test.
49. Where no discharge from the Settling Facility to a Watercourse occurs, whether by surface discharge or seepage, no sampling is required.
50. On or before the anniversary of the date of issuance of this licence, and for each year during which this licence is in effect, the Licensee shall submit an annual report to the Board.

51. Annual reports shall include the information required by this licence and by the Regulation, including, but not necessarily limited to:
- a) the quantity of water used under the licence, and
 - b) the quantity, concentration and type of any waste deposited under the licence, and
 - c) all data collected which is required by this licence, and
 - d) a description of the reclamation that has taken place, and
 - e) a list of grant numbers of claims where any reclamation has taken place, during the year reported.

PART I GENERAL CONDITIONS

52. The expiry date of this licence shall be May 1, 2014.
53. Sewage, including all human excreta and wastewater associated with daily camp operations, shall be disposed of in accordance with the *Public Health and Safety Act* of the Yukon.
54. The location of subsurface grey water pits and/or pit privies shall be not less than 30 metres from the high water mark of any Watercourse and at least 1.2 metres above bedrock or the water table.
55. If very permeable soils are encountered, the pit privy or grey water pit shall be lined with 0.6 metres of sand or silt.
56. All garbage and refuse shall be kept in a covered container until removed from the site or, where appropriate, incinerated and buried under not less than 1 metre of compacted soil in pits located not less than 30 metres from the Natural Boundary of any Watercourse.
57. The Licensee shall immediately contact the 24-hour Yukon Spill Report number (867) 667-7244 and implement the Spill Contingency Plan, should a spill or unauthorized discharge occur. A detailed written report on any such event, including but not limited to, dates, quantities, parameters, causes and other relevant details and explanations shall be submitted to the Board no later than 10 days after its occurrence.
58. No condition of the water use licence limits the application of any federal, territorial, first nation or municipal legislation.
59. In the event that the Licensee fails to comply with any provision or condition of this licence, the Board may, subject to the Act, cancel the licence.

60. Where any direction, notice, order or report under this licence is required to be in writing, it shall be given:

a) to the Licensee, if delivered, faxed, or mailed by registered mail to the following address:

Tatlow Placers Mines Ltd.
Box 438
Dawson City, YT Y0B 1G0

Fax #: (867) 993-5322

and shall be deemed to have been given to the Licensee on the day it was delivered or faxed, or 7 days after the day it was mailed, as the case may be; or

b) to the Board, if delivered, faxed or mailed by registered mail to the following address:

Yukon Water Board
Suite 106, 419 Range Road
Whitehorse, YT Y1A 3V1

Fax #: (867) 456-3890

and shall be deemed to have been given to the Board on the day it was delivered or faxed or 7 days after the day it was mailed, as the case may be.

APPENDIX A (Page 1 of 7)

Grant Number	Watercourse	Area definition				
P24788	Quartz Creek	A				
P24787	Quartz Creek	A				
P10371	Quartz Creek	A				
P13255	Quartz Creek	A				
P34097	Quartz Creek	A				
P34098	Quartz Creek	A				
P13454	Quartz Creek	A				
P4261	Quartz Creek	A				
P4260	Quartz Creek	A				
P13455	Quartz Creek	A				
P4257	Quartz Creek	A				
P4256	Quartz Creek	A				
P4255	Quartz Creek	A				
P13563	Quartz Creek	A				
38892	Quartz Creek	A				
P13709	Quartz Creek	A				
42450	Quartz Creek	A				
P13717	Quartz Creek	A				
42337	Quartz Creek	A				
42334	Quartz Creek	A				
38891	Quartz Creek	A				
P13715	Quartz Creek	A				
42130	Quartz Creek	A				
35721	Quartz Creek	A				
35642	Quartz Creek	A				

APPENDIX A (Page 2 of 7)

Grant Number	Watercourse	Area definition			
29223	Quartz Creek	A			
42012	Quartz Creek	A			
38519	Grants used as a conduit to transport effluent to settling ponds	A			
38520	Grants used as a conduit to transport effluent to settling ponds	A			
P8247	Grants used as a conduit to transport effluent to settling ponds	A			
38521	Grants used as a conduit to transport effluent to settling ponds	A			
P8266	Grants used as a conduit to transport effluent to settling ponds	A			
38522	Grants used as a conduit to transport effluent to settling ponds	A			
P8267	Grants used as a conduit to transport effluent to settling ponds	A			
38523	Grants used as a conduit to transport effluent to settling ponds	A			
P8263	Grants used as a conduit to transport effluent to settling ponds	A			
38524	Grants used as a conduit to transport effluent to settling ponds	A			
P8271	Grants used as a conduit to transport effluent to settling ponds	A			
38525	Grants used as a conduit to transport effluent to settling ponds	A			
38526	Grants used as a conduit to transport effluent to settling ponds	A			
P8262	Grants used as a conduit to transport effluent to settling ponds	A			
38527	Grants used as a conduit to transport effluent to settling ponds	A			
P8264	Grants used as a conduit to transport effluent to settling ponds	A			
38528	Grants used as a conduit to transport effluent to settling ponds	A			
38529	Grants used as a conduit to transport effluent to settling ponds	A			
38530	Grants used as a conduit to transport effluent to settling ponds	A			
42009	Grants used as a conduit to transport effluent to settling ponds	A			
42013	Grants used as a conduit to transport effluent to settling ponds	A			
16844	Grants used as a conduit to transport effluent to settling ponds	A			
33440	Grants used as a conduit to transport effluent to settling ponds	A			
1519	Grants used as a conduit to transport effluent to settling ponds	A			

APPENDIX A (Page 3 of 7)

Grant Number	Water Course	Area definition			
1684	Grants used as a conduit to transport effluent to settling ponds	A			
37639	Grants used as a conduit to transport effluent to settling ponds	A			
20019	Grants used as a conduit to transport effluent to settling ponds	A			
938	Grants used as a conduit to transport effluent to settling ponds	A			
15586	Grants used as a conduit to transport effluent to settling ponds	A			
33529	Grants used as a conduit to transport effluent to settling ponds	A			
91196	Grants used as a conduit to transport effluent to settling ponds	A			
1695	Grants used as a conduit to transport effluent to settling ponds	A			
91332	Grants used as a conduit to transport effluent to settling ponds	A			
1911	Grants used as a conduit to transport effluent to settling ponds	A			
91265	Grants used as a conduit to transport effluent to settling ponds	A			
73818	Grants used as a conduit to transport effluent to settling ponds	A			
P29151	Grants used as a conduit to transport effluent to settling ponds	A			
P29150	Grants used as a conduit to transport effluent to settling ponds	A			
37602	Grants used as a conduit to transport effluent to settling ponds	A			
P28777	Grants used as a conduit to transport effluent to settling ponds	A			
P22065	Grants used as a conduit to transport effluent to settling ponds	A			
P01594	Grants used as a conduit to transport effluent to settling ponds	A			
P01593	Grants used as a conduit to transport effluent to settling ponds	A			
P01592	Grants used as a conduit to transport effluent to settling ponds	A			
P01591	Grants used as a conduit to transport effluent to settling ponds	A			
P01590	Grants used as a conduit to transport effluent to settling ponds	A			
P01589	Grants used as a conduit to transport effluent to settling ponds	A			
P01588	Grants used as a conduit to transport effluent to settling ponds	A			
P01587	Grants used as a conduit to transport effluent to settling ponds	A			

APPENDIX A (Page 4 of 7)

Grant Number	Water Course	Area definition			
P01586	Grants used as a conduit to transport effluent to settling ponds	A			
P01585	Grants used as a conduit to transport effluent to settling ponds	A			
P01584	Grants used as a conduit to transport effluent to settling ponds	A			
P01583	Grants used as a conduit to transport effluent to settling ponds	A			
P01582	Grants used as a conduit to transport effluent to settling ponds	A			
P01581	Grants used as a conduit to transport effluent to settling ponds	A			
P01580	Grants used as a conduit to transport effluent to settling ponds	A			
P01579	Grants used as a conduit to transport effluent to settling ponds	A			
P01578	Grants used as a conduit to transport effluent to settling ponds	A			
P21452	Grants used as a conduit to transport effluent to settling ponds	A			
P43523	Grants used as a conduit to transport effluent to settling ponds	A			
P0809	Grants used as a conduit to transport effluent to settling ponds	A			
P9842	Grants used as a conduit to transport effluent to settling ponds	A			
P38493	Quartz Creek		B		
P38488	Quartz Creek		B		
P39227	Quartz Creek		B		
P38492	Quartz Creek		B		
P25231	Quartz Creek		B		
P25230	Quartz Creek		B		

APPENDIX A (Page 5 of 7)

Grant Number	Water Course	Area definition				
			B			
P25229	Quartz Creek		B			
P24212	Quartz Creek		B			
P24213	Quartz Creek		B			
P24178	Quartz Creek		B			
P24179	Quartz Creek		B			
P24797	Quartz Creek		B			
P24796	Quartz Creek		B			
P24795	Quartz Creek		B			
P24794	Quartz Creek		B			
P24793	Quartz Creek		B			
P24792	Quartz Creek		B			
P24791	Quartz Creek		B			
P24790	Quartz Creek		B			
P24789	Quartz Creek		B			
P14011	Little Blanche Creek			C		
42676	Little Blanche Creek			C		
P13905	Little Blanche Creek			C		
42677	Little Blanche Creek			C		
P13935	Little Blanche Creek			C		
42678	Little Blanche Creek			C		
P14010	Little Blanche Creek			C		
42679	Little Blanche Creek			C		

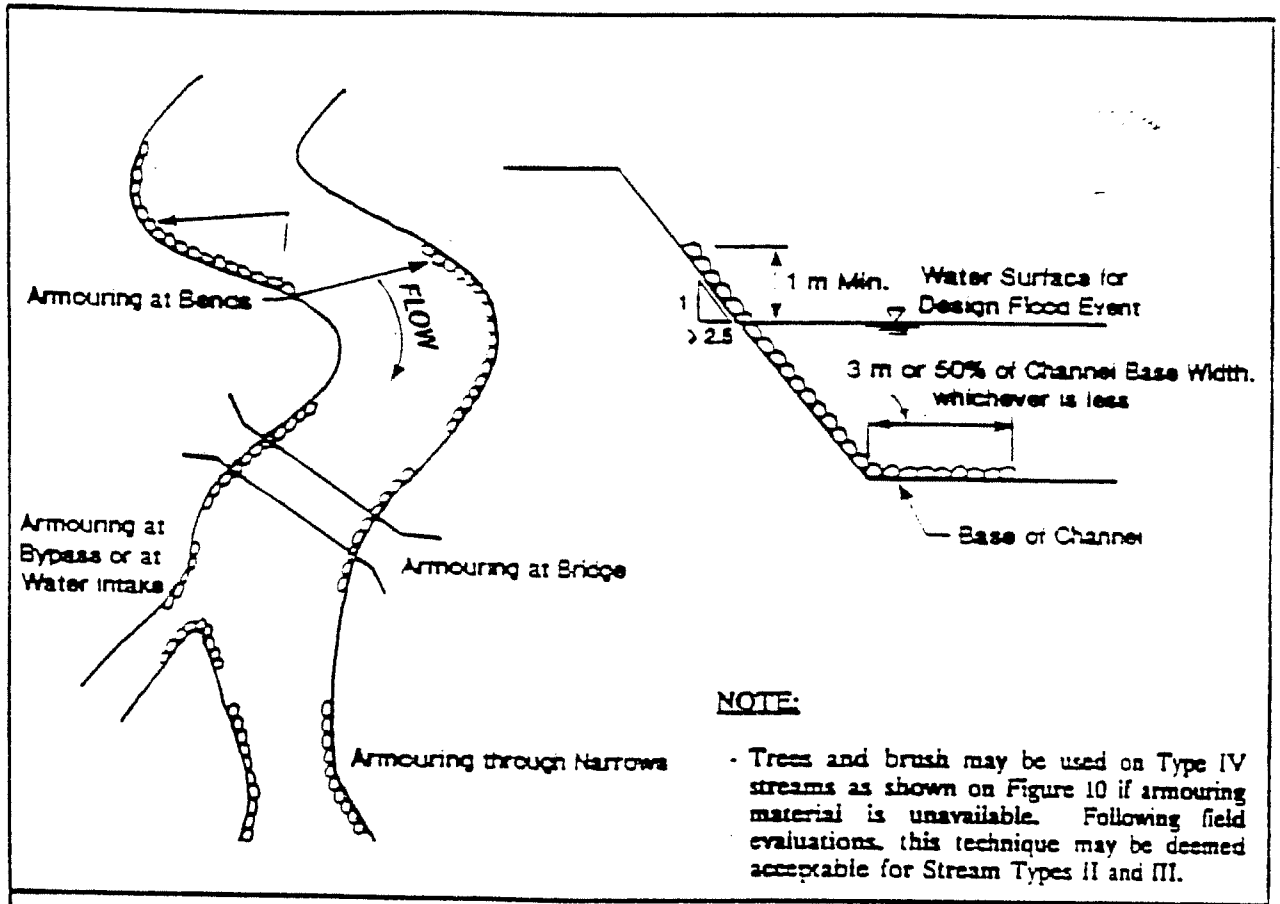
APPENDIX A (Page 6 of 7)

Grant Number	Water Course	Area definition			
42680	Little Blanche Creek			C	
P13980	Little Blanche Creek			C	
42127	Little Blanche Creek			C	
P13716	Little Blanche Creek			C	
42128	Little Blanche Creek			C	
P13718	Little Blanche Creek			C	
42129	Little Blanche Creek			C	
29037	Little Blanche Creek			C	
29048	Little Blanche Creek			C	
P9106	Little Blanche Creek (bench grants)			C	
P9105	Little Blanche Creek (bench grants)			C	
P9104	Little Blanche Creek (bench grants)			C	
P9103	Little Blanche Creek (bench grants)			C	
P9102	Little Blanche Creek (bench grants)			C	
42675	Little Blanche Creek (bench grants)			C	
42674	Little Blanche Creek (bench grants)			C	
42673	Little Blanche Creek (bench grants)			C	
42672	Little Blanche Creek (bench grants)			C	

APPENDIX A (Page 7 of 7)

Grant Number	Water Course	Area definition				
42671	Little Blanche Creek (bench grants)			C		
P43581	Canyon Creek				E	
P43579	Canyon Creek				E	
P43586	Canyon Creek				E	
P43585	Canyon Creek				E	
P43584	Canyon Creek				E	
P43583	Canyon Creek				E	
P43582	Canyon Creek				E	
P44109	Canyon Creek				E	
P38032	Canyon Creek				E	
P38033	Canyon Creek				E	
P24211	Canyon Creek				E	
P24171	Canyon Creek				E	
P4641	Grants for Settling purposes only					F
P4642	Grants for Settling purposes only					F
P4643	Grants for Settling purposes only					F
P4644	Grants for Settling purposes only					F

SCHEDULE 1



PURPOSE:

- To control bank erosion at bends or curves, at bridge approaches and abutments and through channel narrows.

DESIGN:

- Channel armouring should extend from the base of the channel to at least 1 m above the water surface (depth of flow) for the design flood event.
- Armouring should extend beyond the toe of the channel bank along the base of the channel 3 m or 50% the base width of the channel, whichever is less.
- The bank or channel side slopes should be no steeper than 2.5H:1V where the bank is to be armoured.
- Use the following table to determine what size of armouring material should be used.

SUGGESTED STONE SIZES FOR ARMOURING MATERIAL

	Rinco Class					
	1		2		3	
	mm	inches	mm	inches	mm	inches
Maximum Stone Size	450	18	600	32	1200	47
Average Stone Size	300	12	500	20	800	32
Velocity	< 3 m/s		3 to 4 m/s		4 to 4.7 m/s	

CONSTRUCTION:

- Place material on bank using available equipment.
- Ensure that there is a fairly uniform mix of armour material sizes on bank.

ARMOURING TECHNIQUES