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						EBA ENGINEERING CONSULTANTS LTD.				TAHERA Diamond Corporation
						DESIGNED BY:	WTH RGR	THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS and GEOPHYSICISTS OF THE NORTHWEST TERRITORIES	SEAL	JERICHO PROJECT
			0	ISSUED FOR CONSTRUCTION	SEPT/05 WTH	DRAWN BY: DATE:	08/09/05			Figure 2-6 WEST DAM REVISION ISSUE
DRAWING No.	DRAWING TITLE	DD/MM/YY DATE	EV No	ISSUED FOR REVIEW DESCRIPTION	SEPT/05 WTH	SCALE: PROJECT No.:	AS SHOWN 1100060.004	PERMIT NUMBER P 018 EBA ENGINEERING		TYPICAL CROSS—SECTIONS DRAWING No.
	REFERENCE DRAWINGS			REVISION	1		: 1100060004R14C.dwg	CONSULTANTS LTD.		WD-4

Tahera Diamond Corporation 2007 Reclamation Plan Update Jericho Diamond Mine April 2007



2.3.2.2 Material Properties

The following provides a summary of the materials that will be used to construct the dam. Specifications for the material gradations and placement requirements are presented in the West Dam Construction Specifications.

Slope Protection

The upstream slope of the West Dam may be subject to wave action. The fetch length between the West Dam and Divider Dyke is 750 m. The calculated wave height is 0.5 m for the maximum sustained wind of 74 kph. Rip-rap with a minimum average particle size (D50) of 300 mm is required to protect the dam against wave action.

It is proposed that the upstream dam shell will be run-of-mine rock with a maximum particle size of 700 mm. It is anticipated that the run of mine will have an average particle size larger than the minimum requirements for rip-rap and therefore will be suitable slope protection.

2.3.2.3 Run-Of-Mine Rockfill

The upstream and downstream shell materials will be run-of-mine granitic rock with a maximum particle size of 700 mm. The material shall be placed in lifts of a maximum of 700 mm. Any boulder larger than 700 mm can be wasted to the outside downstream edge of the dam.

2.3.2.4 Till

A small till berm will be constructed within the upstream shell. The natural till deposits on site vary from sand and gravel with some cobbles and boulders to silty sand and gravel with cobbles and boulders. The till for the West Dam should be a silty sandy till with some cobbles. Particles larger than 250 mm should be removed from each lift of material to allow for compaction of the till. The large particles can be wasted on the outsides of the till berm.

2.3.2.5 20 mm Minus Core

A 20 mm minus crushed granite will be used to construct the frozen core. The material must have a minimum of 4% particle sizes smaller than 80 microns.

2.3.2.6 Geocomposite Clay Liner

A geocomposite clay liner (GCL) will be placed on the upstream side of the frozen core and within the key trench. The recommended GCL consists of two non-woven geotextiles encapsulating a layer of bentonite. The GCL will be needle punched to provide adequate shear strength.

2.3.2.7 Liner Bedding

Bedding material must be placed on either side of the GCL. The bedding material can consist of 20 mm minus crush material, or 40 mm minus esker material with sub rounded particles.

2.3.2.8 Transition Material

A 200 mm minus transition material is required between the liner bedding material and the rockfill material and also between the core and the rockfill. The transition material must meet filter criteria for the liner bedding and the rockfill as follows:

• D15 of the transition < 5 * D85 of the filter