

Assignment Name: River Diversion Channel (Sharkbite Mine)		ID#: 22
Country: Canada Location within Country: Alberta	Approx. value of the contract: Not available.	
Name of Client: Shell Canada	Approx. value of the professional services provided under the contract: US\$ 420,000	
Address:	Total No. of staff-assigned to Project: 4	
Start date (month/year): March 2010	Total No. of staff-months of the assignment: 9	
Completion date (month/year): November 2011	Duration of assignment (months): 20	
<u>Narrative description of Project:</u> Design and construction supervision for the River Diversion Channel for the Sharkbite Mine, required to permit mining operations to commence.		
<u>Description of actual services provided by professional engineering staff within assignment:</u> <p>The design of a surface water channel utilizing only on-site material (no imported fill) required additional geotechnical input on material properties to ensure the correct side-slopes of the channels.</p> <p>Drainage velocities in the channel were excessive due to the natural slope of the site and additional attenuation and flow restriction structures were required to alleviate the associated scour and sediment transport in the channel under peak flow conditions.</p> <p>Construction occurred primarily in winter due to the saturated ground conditions in spring / summer, with additional design and construction monitoring considerations</p>		
<u>Description of Activities provided by RWI</u> <p>Led the design team for the solution development for various gravity and pumped stormwater management systems (piped), and various open-channel solutions for diverting and conveying the stormwater run-off and stormwater decant from the exiting mine pits.</p> <p>The designs had to consider the relatively short remaining life of the mine and minimize the overall capital investment while allowing the mine to maintain operational integrity of the drainage systems in post-closure status.</p> <p>Provided input and direction on management of scope changes and project deviations.</p>		

