



## WEEKLY SITE ACTIVITIES UPDATE REPORT

Client: Ministry of Environment and Climate Change

Project: Landfill Closure Activities at Cobble Hill Holdings, 460 Stebbings Rd Near Shawnigan Lake, BC

Dates: Includes work from September 18, 2017 to September 22, 2017

### Comments:

Staffing - The entire week was generally consistent with staffing of 5 labours, 3 equipment operators, 1 supervisor as well as Todd Mizuik (Allterra). The requirement for a QP was not met. The QP was only on site for a total of 4.5 hours over the entire period. The name of the QP has not been identified in writing to the MOE.

Equipment - The on-site equipment consisted of 1- 966 Cat loader, 1- 320 Cat excavator, 1- 450 Hitachi excavator.

#### Work performed:

- The Contact Water pond was decommissioned and backfilled with on-site material. 3.5 loads of leachate was removed by Coast Waste and taken their Langford, BC facility for disposal. The outstanding requirement is to seed the area.
- The Soil Management Area was being cleaned and the material on the sides of the facility was being moved into the center while labours manually removed soil from beside and between the lock blocks. The east side has been completed; work is ongoing on the west side.
- Construction of the leachate containment cell is near completion. Four rows of lock blocks have been placed and the bedding material and geotextile installed. The liner is on site ready to be installed. An additional 2 more rows of blocks are required. It is unknown if the liner meets specs as the Qualified Professional (QP) did not provide GHD with quality control (QC) documentation.
- Conveyance pipe trenching was completed and bedding material placed into the trench to proper grade; the trench is ready for pipe placement. It is unknown if the bedding material meets spec as the QP did not provide GHD with QC documentation. The DR17 HDPE pipe is on site.
- The soil berm in front of the north toe of the PEA has been removed.

The weather has been cooperating as there were only a couple of quick showers that barely wet the ground within the site. The creek at the front of the site has been dry all week. On two days we were visited by several gentlemen who stood outside the west site boundary. I did approach them and had a friendly discussion. By all indications they are pleased with what is happening to close the site. They also confirmed that the creek has been dry all week.

GHD has not observed discrepancies to date related to the construction.



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<i>Work Task</i>	<i>Activity</i>	<i>Performed By</i>	<i>Equipment</i>		<i>Personnel</i>		<i>Discrepancies to Spill Prevention Order (SPO), Closure Plan (CP) or Detailed Construction Plan (DCP)</i>
			<i>Type</i>	<i>Hours</i>	<i>Number</i>	<i>Total hrs</i>	
<b>SPO - Secondary Clay Liner Investigation</b>	none observed						
<b>SPO - Monthly Sampling</b>	none observed						



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<b>SPO - Semi-Monthly Status Reports</b>						
Weekly progress report received on Sept 22, 2017	Sperling Hansen Associates	--	--	--	--	<p>A weekly progress report was provided by Sperling Hansen Associates for the period of Sept 18-21, 2017. Information provided in the weekly progress report included work completed, upcoming work, and photographs. No quality control (QC) testing results or work plan deviations, as required per item 6b of the August 11, 2017 letter from the MOE, were documented in the weekly progress report; however, this information isn't required until the 30th of the month (refer to Schedule section below). Two clarifications were noted by GHD related to the work listed in the report: (1) the contact water pond was backfilled in two lifts and compacted with the tracks of the excavator, and (2) the trenching of the piping indicated to occur the following week had actually been completed during the reporting period.</p>



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<b>SPO - Qualified Professional on Site</b> QP on site for 2.5 hour on the Sept 19, 1.5 hrs on Sept 20, 1 hr on Sept 21	Island Engineering			1	5	A QP is required to be on site at all times as identified in item 2 of the August 11, 2017 letter from the MOE. Although the 2017 Minor Construction Works Detailed Construction Plan identifies Sperling Hansen Associates as the QP, a representative from Island Engineering introduced himself to GHD while on site and identified himself as the QP. (Regardless, as noted above, the weekly progress report was provided by Sperling Hansen Associates.)
<b>Material Procurement/Delivery</b> Lock blocks, piping, geotextile, liner, 6-mil poly tarp. (note: gravels listed in the Materials section below are obtained on site)	Allterra unloaded deliveries from various trucking companies	320 & 450 excavators and 966 loader	6	12	24	None observed



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<b>Leachate Storage and Detection Facility</b> Storage facility space was excavated and graded. Bedding material was placed. Four rows of lock blocks were placed. Geotextile was placed within area confined by the lock blocks. 150-mm minus cobbles were placed as backfill on the outside of the lock blocks up to the third lock block. Geotextile was placed over the cobbles, and approximately 0.3 m of granular material was placed over the geotextile.	Allterra	320 & 450 excavators	27	11	47	None observed
<b>Leachate Conveyance Piping</b> Trench for piping was excavated at a 2% slope as confirmed using a laser level. Bedding material was placed.	Allterra	450 excavator and 966 loader	3	5	7	None observed. Unknown if the pipe bedding meets the closure plan specs.
<b>SPO - High Level Alarm</b> none observed						



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<p><b>Decommission Contact Water Containment Pond</b>            Before the pond was decommissioned, leachate from the existing leachate storage tanks located at the northern toe of the PEA was pumped from the tanks to the pond. Leachate was pumped from the pond and transported off site for disposal. Sludge was removed and placed on the soil pile in the SMA. Two shovel-fulls of residual sludge fell from the liner as it was being removed; the sludge and underlying soil were removed and also placed in the SMA. Pond fencing and liner were removed. Pond was backfilled with on-site silty borrow material in two approx. 2-metre lifts compacted with the excavator tracks. The liner was containerized a roll-off box to be transported off site for disposal at a later date.</p>	Allterra, Coast Waste (for liquid removal)	320 & 450 excavators and 966 loader	25	18	137	Seeding is still required to complete this task.
<p><b>Stockpile and Cover SMA Soil</b>            Excavator and loader moved soil from around the SMA and consolidated the soil in the middle of the SMA. Labours manually removed soil from the cracks between the lock blocks.</p>	Allterra	320 excavator and 966 loader	21	16	99	None observed.
<p><b>Install Shallow Seepage Blanket Monitoring Wells</b>            none observed</p>						
<p><b>PEA Liner Repairs</b>            none observed</p>						



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<b>PEA Crest Ditch Ballasting</b> none observed				
<b>Run-On Ditching</b> none observed				
<b>TOTAL TIME DURING REPORTING PERIOD:</b>		<b>82</b>	<b>319</b>	
<b>TOTAL TIME FOR PROJECT:</b>		<b>82</b>	<b>319</b>	

Item	Description	Comments	Meets Specs		Discrepancies to Spill Prevention Order (SPO) or Closure Plan (CP)
			Yes	No	
<b>Material inspected</b>					
	<u>Leachate Storage and Detection Facility</u> 10,000 gal HDPE storage tanks (3) Lock blocks Heavy weight non-woven geotextile 40 mil smooth liner, pre-welded	Liner was pre-welded, smooth. GHD has not rec'd certs confirming it meets the QMP.	X		
	Sand/fine gravel		X		
	<u>Leachate Conveyance Piping</u> 100 mm HDPE DR17 piping 19-mm minus crush gravel for pipe bed	GHD has not rec'd grain size results confirming QMP was met.	X		
	Geotextile		X		
	<u>Decommission Containment Pond</u> Low permeability on-site soil		X		
	<u>Stockpile and Cover SMA Soil</u> 6-mil poly tarp		X		

