



WESTMORELAND COAL COMPANY - *Obed Mountain Mine*

**Obed Mountain Mine  
Wastewater Release  
Monthly Status Report for April 2015**

**May 7th, 2015**

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## **1.0 MONTHLY STATUS REPORT – APRIL 2015**

On November 19, 2013, Alberta Environment and Sustainable Resource Development ("ESRD") issued Environmental Protection Order No. EPO-2013/34-CR, as amended (the "EPO"), to Coal Valley Resources Inc. ("CVRI") and Sherritt International Corporation in respect of the Obed Mountain Mine (the "Mine"). Oversight of the EPO transferred from ESRD to the Alberta Energy Regulator ("AER") in March 2014. CVRI became a subsidiary of Westmoreland Coal Company in April 2014.

This Monthly Status Report has been prepared in accordance with Clauses 39 and 40 of the EPO. The following documents are submitted in support of the April 2015 Monthly Status Report:

1. **Attachment 1** - Monthly Data Sonde Summary Tables
2. **Attachment 2** - Sediment Trap Bathymetry\_V1
3. **Attachment 3A** - DFO Communication
4. **Attachment 3B** - Response to DFO communication

## **2.0 EPO Activities in April 2015**

### **2.1 CLAUSE 3 IMMEDIATE AND SHORT TERM SAMPLING AND MONITORING PLAN**

The requirements under the approved Immediate and Short Term Sampling and Monitoring Plan are complete. Sampling and Monitoring continue under the Long Term Sampling and Monitoring Plan. This Plan has been fully executed.

#### **Summary of Plan Status**

CVRI received ESRD approval of the Immediate and Short-Term Sampling and Monitoring Plan on February 7, 2014.

The implementation and execution of the Immediate and Short Term Sampling and Monitoring Plan concluded on April 24<sup>th</sup>, 2014 when the Long Term Sampling and Monitoring Plan was approved. All data that was previously collected under the Immediate and Short Term

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Sampling and Monitoring Program has continued under the agreed upon terms outlined in the approved Long Term Sampling and Monitoring Plan.

## **2.2 CLAUSES 6-10 - SOLIDS RECOVERY PLAN**

The approved Solids Recovery Plan remains active; no amendments to the approved plan are proposed for Spring 2015. The deployment of the silt curtains has been completed, as communicated in the Weekly Summary Report, in advance of freshet. **Attachment 2** provides the most recent Sediment Trap Bathymetry as required under the Solids Recovery Plan. The supporting Sediment Trap Evaluation Report, completed and submitted March of 2015, is available in the Obed website.

### **Summary of Plan Status**

CVRI received ESRD approval of the Solids Recovery Plan on February 7, 2014. The approval of the Solids Recovery Plan included contingencies and revisions that required the Solids Recovery Plan to be updated and resubmitted to ESRD by February 14, 2014. The amended Solids Recovery Plan was resubmitted to ESRD on February 14, 2014.

## **2.3 CLAUSES 10 – SOLIDS RECOVERY REPORT**

CVRI submits updates to the Clause 10 – Solids Recovery Report as part of the Monthly reporting requirements.

There is no new activity to report under Clause 10 – Solids Recovery Report for April 2015.

## **2.4 CLAUSE 17 LONG TERM SAMPLING AND MONITORING PLAN**

The Long Term Sampling and Monitoring Plan is considered active. The sampling and monitoring has returned to spring summer frequencies outlined in the approved plan.

### **Summary of Plan Status**

CVRI received approval of the Long-Term Sampling and Monitoring Plan retroactive to April 24, 2014.

The Long-Term Sampling and Monitoring Plan is fully implemented and replaces the requirements outlined in Clause 3, the Immediate and Short Term Sampling and Monitoring Plan.

- CVRI collects and reports on samples to the AER on a weekly basis. The data collected is reviewed and discussions regarding the findings are provided in the Quarterly Progress Report.
- Water sampling on the Mine site, as required under EPEA Approval No. 10119-02-00 (the "Approval"), and as prescribed by the approved EPO Plans are summarized below.

<b>Table 1: Obed Sampling and Monitoring Requirements During Pumping Operations</b>			
<b>Location</b>	<b>Requirements</b>	<b>Frequency</b>	<b>Notes</b>
Oldman Creek (OMC)	NTU, pH	2X/Day U/S and D/S while pumping	TSS samples collected when NTU>50
	Water Chemistry	1X/ week	
Baseline Creek (BLC)	NTU, pH	2X/Day D/S while pumping	TSS Samples collected when NTU>50
	Water Chemistry	1X/ week	
Pump Discharges	NTU, pH, Flow, Volume	Every 6 hours while pumping	Includes: MTP, ELP1, Pond 5. TSS samples are collected when NTU>50

<b>Table 2: Obed Regular On-Site Sampling and Monitoring Operations</b>			
<b>Location</b>	<b>Classification</b>	<b>Frequency</b>	<b>Requirements</b>
East Limb Pond 1 (ELP1)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
East Limb Pond 2 (ELP2)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
South Plateau Pond 1 (SPP1)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
South Plateau Pond 2 (SPP2)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates

South Plateau Pond 3 (SPP3)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
Main Tailing Pond (MTP)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates Monthly Water Chemistry
Pond 5	Minor Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
Load-Out Settling Pond 2 (LSP2)	Minor Pond	Weekly	1X/week for pH, TSS, NTU Monthly for nitrates
Load-Out Settling Pond 3 (LSP3)	Minor Pond	Weekly	1X/week for pH, TSS, NTU Monthly for nitrates

**Table 3: Obed Water Sampling and Monitoring Program**

Site Name	Watercourse	UTM		Data Collection Frequency		
		Easting	Northing	Water	Data Sonde	Water Sediment Toxicity
<b>Near-Field Sample Sites<sup>1</sup> (See Figure 1)</b>						
APC –US <sup>3</sup>	Apetowun Creek	470657	5937715			May, July and September
APC	Apetowun Creek	472400	5938941		15-min <sup>2</sup>	May, July and September
APC-DS <sup>3</sup>	Apetowun Creek	477133	5943213			
PLC-US	Plante Creek	482483	5945393		15-min <sup>2</sup>	
PLC-DS	Plante Creek	483639	5942193	2 x weekly	15-min <sup>2</sup>	May, July and September
ATR-US	Athabasca River	476280	5931218		15-min <sup>2</sup>	May, July and September
ATR –PLC	Athabasca River	485385	5940747		15-min <sup>2</sup>	
ATR-D1	Athabasca River	478576	5950378			May, July and September
ATR-D2	Athabasca River	489498	5965837		15-min <sup>2</sup>	
<b>Far-Field Sample Sites<sup>1</sup> (See Figure 2)</b>						
ATR-WD1	Athabasca River	660944	6028061			
ATR-FF2 <sup>3</sup>	Athabasca River	605947	6002848			

ATR-FF3 <sup>3</sup>	Athabasca River	564752	6003585			
ATR-AD1	Athabasca River	658459	6025745	Monthly		
ATR-FF5	Athabasca River	475330	6286105			
ATR-FF6	Athabasca River	463203	6332042			
ATR-FF7	Athabasca River	470022	6463222			

## **2.5 Fish Sampling and Monitoring Plan**

The data collected under the Fish Sampling and Monitoring Plan has been evaluated and will be included in the Impact Report, to be submitted May 15<sup>th</sup>, 2015. Note, a request to extend the submission deadline to June 1<sup>st</sup>, 2015 has been completed. A response from the AER is anticipated on Friday May 8<sup>th</sup>.

A technical discussion regarding the Fish Sampling and Monitoring Program, data and future requirements will be held in mid June 2015 after the respective regulatory authorities have completed their initial review.

### **Summary of Plan Status**

The Fish Sampling and Monitoring Plan is considered Approved and Active.

## **2.6 Clause 11 - Impacts Assessment Plan Clause 15 - Impacts Report**

### **CLAUSE 15 - IMPACTS REPORT**

The Impacts Report is currently being updated and will be resubmitted to the AER on May 15th, 2015. Note, a request to extend the submission deadline to June 1st, 2015 has been completed. A response from the AER is anticipated on Friday May 8th.

### **Summary of Clause 15 Status**

CVRI submitted an Interim Impacts Report on January 17, 2014. On May 16, 2014, CVRI submitted the Impacts Report as prescribed by the EPO. No communication regarding the Impacts Report has been received as of December 7, 2014.

## **CLAUSE 11 - IMPACTS ASSESSMENT PLAN**

Data collected under the Impacts Assessment Plan is communicated to the AER via the Clause 15, Impacts Report. An update to the Impacts Report will be submitted to the AER on May 15, 2015.

### Summary of Plan Status

CVRI received approval of the Impacts Assessment Plan retroactive to April 24, 2014. Approval of the Impacts Assessment Plan included contingencies and revisions that required a response. The Impacts Assessment Plan was resubmitted to the AER on May 27, 2014. The Impact Assessment Plan has been fully implemented.

### **2.7 Clause 22- Wildlife Mitigation Plan**

Data collected under the Wildlife Mitigation Plan is communicated to the AER via the Clause 15, Impacts Report. An update to the Impacts Report will be submitted to the AER on May 15, 2015 as part of the Impact Report..

### Summary of Plan Status

CVRI received approval of the Wildlife Mitigation Plan retroactive to April 24, 2014. Data related to the Wildlife Mitigation Plan was submitted to the AER on October 15, 2014 as part of the Quarterly Progress Report. The submitted October and December updates are available on the Obed website.

### **2.8 Clause 27 - Remediation Plan**

The Final Remediation Plan was to be submitted to the AER for review on May 15, 2015. A request to extend the submission deadline to June 1st, 2015 has been completed. A response from the AER is anticipated on Friday May 8th.



## **2.9 Clause 34 – Waste Management Plan**

CVRI received approval of the Waste Management Plan on February 11, 2014. Included in the ESRD approval of the Waste Management Plan was a request to respond to outstanding questions and resubmit the plan by February 14, 2014. CVRI addressed the concerns and resubmitted the plan and the plan was approved. No updates or planned activity in the next 30 days.

## **2.10 Clause 37 - Wastewater Management Plan**

CVRI received approval for the Wastewater Management Plan on February 11, 2014. Included in the approval was a request to update ESRD as to the expected completion of the Medium Term Plan. CVRI provided an update to ESRD and submitted the Medium Term Plan (Clause 37 of the EPO) to ESRD on February 28, 2014.

In accordance with the Medium Term Plan, CVRI completed the following submissions:

1. Geotechnical Information – March 17, 2014;
2. Causation Report and required data – March 18, 2014;
3. Application under the *Water Act* to Construct Red/Green Pit Dam – March 26, 2014;
  - a. SIRs received, response submitted May 30, 2014;
  - b. Follow-up to SIRs received June 16, 2014;
    - i. Request for clarification received from the AER on July 2, 2014;
4. Application under the *Coal Conservation Act* to amend Licence C 2009-1 (Red/Green Pit Dam) – March 26, 2014; and
5. Red/Green Perimeter Assessment Report – March 31, 2014.

CVRI has received approval to amend Licence C 2009-1 (Red-Green Pit Dam). CVRI is now in the process of reviewing the approval in terms of end land use planning and plans to submit an update to the AER with the 3 year reclamation plan in March 2015.

## **2.11 HUMAN HEALTH RISK ASSESSMENT (“HHRA”) REPORT**

The HHRA assessment has been through three development iterations since November 2014. The HHRA will be submitted to Alberta Health and the AER in conjunction with the Impact Report and Remediation Plan before June 1<sup>st</sup>, 2015. The HHRA speaks directly to the data and findings communicated in the Impact Report and to prevent questions regarding the location of data and related reports the files will be released simultaneously.

## **3.0 PLANNED EPO ACTIVITIES FOR May 2015**

During the month of May CVRI will:

1. Collect data as prescribed by the approved plans.
2. Evaluate data collected as prescribed by the Long-Term Sampling and Monitoring Plan, Impacts Assessment Plan, and Wildlife Mitigation Plan for inclusion into the Final Impact Plan, May 15, 2015.
3. Scheduled technical meetings for the month of June with DFO, ESRD, AH and the to discuss the Impact Report, Remediation Plan and HHRA.

## **CLOSING**

CVRI continues to communicate with the AER to collect and submit data and information as prescribed by the approved plans. The submission of regularly scheduled progress reports and defined response periods allows CVRI and the AER to continue to communicate in a clear and effective manner until the final Impacts Report and Reclamation Report are submitted.

### 3.1 REPORTING STRATEGY

<b>Table 4: Obed Reporting Program May 2014-September 2015</b>				
<b>Report Type</b>	<b>EPO Clause</b>	<b>Submission Frequency</b>	<b>Description</b>	<b>Status</b>
Action Summary	Clause 21	Weekly Thursdays	Details the weekly action related to operations and EPO related activities.	Ongoing
Monthly Update	Clause 39	Monthly - on or before the 7 <sup>th</sup> day of each month.	A status report in writing that contains a summary of all activities undertaken in accordance with the EPO in the previous month and all activities that are planned for the next month. Inclusion of Clause 10 Solids Recovery Report updated initiated in July.	Ongoing April Report Submitted
Final - Impacts Assessment Report	Clause 15	Internal Review April 1, 2015  AER Submission  May 15 <sup>th</sup> , 2015*	Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.	In development  Extension to June 1 <sup>st</sup> , 2015 requested.
Final - Remediation Plan	Clause 27	Internal Review April 1, 2015  AER Submission  May 15th, 2015	Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.	In development  Extension to June 1st, 2015 requested.
Final Report		Dependent upon completion of remediation activities and sign off from the AER.	Required 30 days after the completion of all requirements as prescribed by the EPO.	TBD
Impacts Report	Clause 15	May 16, 2014	A report of all data collected (including references to data collection locations) and all conclusions regarding the impacts to the receptors and habitats as identified during implementation of the Impacts Assessment Plan (the "Impacts Report"). See EPO Amendment 1 for date change.	Initial Submission complete.
Remediation Plan	Clause 27	May 16, 2014	A detailed remediation plan – See EPO Amendment 1 for date	Initial submission complete.

			change.	
Progression Report	Clauses 15 and 27	July 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	Complete
Progression Report	Clauses 15 and 27	October 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	Complete
Progression Report	Clauses 15 and 27	January 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	Complete

