



**Coal Valley Resources Inc. – *Obed Mountain Mine***  
A Subsidiary of WESTMORELAND COAL COMPANY

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

**April 7th, 2015**

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## **1.0 MONTHLY STATUS REPORT – MARCH 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 February 2015 Monthly Status Report:

1. **Attachment 1** - Monthly Data Sonde Summary Tables – Delayed until March 8<sup>th</sup> due to logistical issues.

## **2.0 EPO Activities in March 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.

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

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## **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. CVRI submitted the Sediment Trap evaluation Report to the AER on March 26<sup>th</sup>, 2015 as part of the Weekly Submission. The Sediment Trap Evaluation Report is available in the Obed website and has been included in this transmission for convenience.

The required TFA for the Sediment Traps, as outlined in the Solids Recovery Plan, were approved by the AER on March 19<sup>th</sup>, 2015. A copy of the approved TFA's will be retained at site for inspection purposes. CVRI will be proceeding with the installment of the silt curtains in the approved sediment traps in advance of freshet. CVRI will notify the AER in advance of this process via the Weekly Summary Report.

### **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 March 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	Major Pond	Daily	3X/week for pH, TSS

(SPP1)			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 Fish Sampling and Monitoring Plan was approved in November 2014. The sampling program was fully executed in 2014 and data collected from the program has been submitted to the AER and posted to the Obed website accordingly.

A technical discussion regarding the Fish Sampling and Monitoring Program was completed on March 26<sup>th</sup>, 2015. Comments from the meeting have been collected and responses will be included in the update to the Fish Sampling and Monitoring Plan; part of the Final Impact Assessment Report due May 15, 2015.

### **Summary of Plan Status**

Updates and inclusion of data and findings are being completed. The updated plan will be submitted to the AER on May 15<sup>th</sup>, 2015 as per of the Final Impact Assessment Report (Clause 15).

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

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

The Final Impacts Report is currently being updated and will be resubmitted to the AER on May 15th, 2015.

### **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 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.

### 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**

On May 16, 2014, CVRI submitted the Remediation Plan as prescribed by the EPO. The Final Remediation Plan will be submitted to the AER for review on May 15, 2015.

## **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 development of the HHRA is now under final development / review and will be submitted to Albert Health and the AER as part of the May 15th, 2015 Impact Assessment Report.

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

During the month of april, 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. Install the silt curtains as required under the Solids Recovery Plan.
4. Provide updates to the Obed website.

### **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-April 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  March 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
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
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.	
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	Initial Submission complete.

			Assessment Plan (the "Impacts Report"). See EPO Amendment 1 for date change.	
Remediation Plan	Clause 27	May 16, 2014	A detailed remediation plan – See EPO Amendment 1 for date change.	Initial submission complete.
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

