



WESTMORELAND COAL COMPANY - *Obed Mountain Mine*

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

**June 7th, 2015**

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## **1.0 MONTHLY STATUS REPORT – MAY 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** - EPO Request - Communications

## **2.0 EPO Activities in May2015**

### **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.

### **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 and Attachment 1 describes the process for sediment trap clean out that will occur in June / July 2015. The AER will be provided notice a week in advance of this work being initiated.

### **Summary of Plan Status**

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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**

This report provides a volumetric update to regarding sediment removal. There is no activity to report under Clause 10 – Solids Recovery Report for May 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>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<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| East Limb Pond 2 (ELP2)   | Major Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| South Plateau Pond 1 (SPP1)   | Major Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| South Plateau Pond 2 (SPP2)   | Major Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| South Plateau Pond 3 (SPP3)   | Major Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| Main Tailing Pond (MTP)   | Major Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates<br>Monthly Water Chemistry |
| Pond 5  | Minor Pond            | Daily            | 3X/week for pH, TSS<br>Daily for NTU<br>Bi-weekly for Nitrates                            |
| Load-Out Settling Pond 2 (LSP2)   | Minor Pond            | Weekly           | 1X/week for pH, TSS, NTU<br>Monthly for nitrates  |
| Load-Out Settling Pond 3 (LSP3)   | Minor Pond            | Weekly           | 1X/week for pH, TSS, NTU<br>Monthly for nitrates  |

| <b>Table 3: Obed Water Sampling and Monitoring Program</b> |                    |                |                 |                                  |                   |                                |
|--|--------------------|----------------|-----------------|----------------------------------|-------------------|--------------------------------|
| <b>Site Name</b>   | <b>Watercourse</b> | <b>UTM</b>     |                 | <b>Data Collection Frequency</b> |                   |                                |
|  |                    | <b>Easting</b> | <b>Northing</b> | <b>Water</b>                     | <b>Data Sonde</b> | <b>Water Sediment Toxicity</b> |
|  |                    |                |                 |                                  |                   |                                |

| Near-Field Sample Sites <sup>1</sup> (See Figure 1) |                 |        |         |            |                     |                         |
|---|-----------------|--------|---------|------------|---------------------|-------------------------|
| 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> |                         |
| Far-Field Sample Sites <sup>1</sup> (See Figure 2)  |                 |        |         |            |                     |                         |
| 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 was included in the Final Impact Report, submitted May 28<sup>th</sup>, 2015.

A technical discussion regarding the Fish Sampling and Monitoring Program, data and future requirements will be held June 25<sup>th</sup>, 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 has been updated and was submitted to the AER on May 28<sup>th</sup>, 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 communications regarding neither the Impacts Report nor the update May 28<sup>th</sup>, 2015 versions have been received as of June 7<sup>th</sup>, 2015.

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

Data collected under the Impacts Assessment Plan is communicated to the AER via the Clause 15, Impacts Report.

#### **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 was submitted to the AER on May 28<sup>th</sup>, 2015 as part of the Final 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 submitted to the AER for review on May 28, 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.

CVRI has received approval to amend Licence C 2009-1 (Red-Green Pit Dam). CVRI is in the process of reviewing the Dam approval in terms of end land use planning and will submit an update for discussion to the AER July 2015..

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



The HHRA, final update was submitted to AH for review on May18th, 2015. AH has requested that the HHRA be released publically once AH provides has had time to provideinitial comments. The release date is anticipated as June 19<sup>th</sup>, 2015.

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

During the month of June CVRI will:

1. Collect data as prescribed by the approved plans.
2. Schedule technical meetings for the month of June with DFO, ESRD, AH and the to discuss the Impact Report, Remediation Plan and HHRA.
3. Complete sediment trap clean out June / July 2015.

### **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 – Request for communication modification submitted June 7th    |
| 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<br>May Report Submitted  |
| Final - Impacts Assessment Report                              | Clause 15         | Internal Review<br>April 1, 2015<br><br>AER Submission<br><br>May 15 <sup>th</sup> , 2015* | Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.   | Submitted May 28 <sup>th</sup> , 2015.<br>Extension granted by the AER |
| Final - Remediation Plan                                       | Clause 27         | Internal Review<br>April 1, 2015<br><br>AER Submission<br><br>May 15th, 2015               | Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.   | Submitted May 28th, 2015.<br>Extension granted by the AER              |
| 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 |

