

EPO 2013/ CR-34
Obed Mountain Mine
Monthly Status Report – June 2018

Issued: July 6, 2018

Table of Contents

1.0	MONTHLY STATUS REPORT – JUNE 2018	2
2.0	EPO ACTIVITIES.....	2
2.1	FIELD WORK COMPLETED IN JUNE.....	2
2.2	CLAUSES 17 – LONG TERM SAMPLING AND MONITORING PLAN ('LTSMP').....	3
2.3	CLAUSE 27 – REMEDIATION PLAN.....	4
2.4	HUMAN HEALTH RISK ASSESSMENT ("HHRA").....	5
3.0	PLANNED FIELD WORK JULY 2018.....	5
4.0	CONTACT INFORMATION	6

1.0 MONTHLY STATUS REPORT – JUNE 2018

On December 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 ("Sherritt") in respect of the Obed Mountain Mine (the "Mine").

The Proponent's, Sherritt and Prairie Mines & Royalty ULC ("PMRU", previously known as CVRI), submit the following Monthly Status Report as required by the EPO:

- Appendix 1 - June 2018 Data Sonde Data
 - Please Note: data in monthly graphs are raw, uncorrected data. All data will be corrected applying standard correction methods using calibration records, field notes and water levels, data grading, and will be presented in the annual monitoring report.

2.0 EPO ACTIVITIES

2.1 FIELD WORK COMPLETED IN JUNE

Table 1 summarizes EPO related field work that was completed in June 2018.

Table 1 Field Work Completed		
Location	Activity	Description
MTP and ECP	Water Management	Active water management of the MTP and ECP occurred via pumps and scclair pipe.
MSL	Rock Screening	The site obtained a rock screener which sorts rock into three different sizes. The screener is positioned on top of Obed Mountain where it is screening rounded rip rap.
APC-7	Material Staging	Class 2/3 angular rip rap was being staged at the sediment trap laydown at ST1 off the DX Road in preparation for fish exclusion weir construction. Access mats were also placed along APC to the fish exclusion weir location.
Upper APC	Site Tour	A site tour occurred with the EPO Technical Team and staff from the AER, AEP and DFO.
MSL	Fish Salvage	Fish salvage activities occurred in the ECP Impoundment, ECP, and MTP.

Table 1 Field Work Completed		
Location	Activity	Description
APC-4	Fish Fence Install	A fish fence was installed within APC-4 upstream of the confluence with APC-Main Branch.
ST2A & ECP	Data Sonde Deployment	Data sondes were deployed into ST2A and ECP to gather real time data (15-minute increments) including temperature, DO, pH, EC, and TSS.
Sediment Traps	Monthly Sediment Trap Inspection	The monthly sediment trap inspection including ST1, ST2A and ST2B was completed in June. The abandoned and partially reclaimed ST3 was also inspected. No major issues were present.

2.2 CLAUSES 17 – LONG TERM SAMPLING AND MONITORING PLAN ('LTSMP')

The Proponents received approval of the Long-Term Sampling and Monitoring Plan (LTSMP) retroactive to April 24, 2014.

The AER, AEP, DFO and Alberta Health Services received a copy of all data collected under the LTSMP on March 29, 2018. To date, no questions have been received from the various regulatory agencies.

Table 2 below describes any actions related to data sonde operation or calibration to the end of June.

Table 2 Data Sonde Status (2018)			
Site	Event Description	Date Range	Notes
APC	Sonde calibration	31 – Jan - 18	SDI issue, crew returning February 2, 2018 to fix.
APC	Sonde Troubleshooting	2 – Feb - 18	Crew returned and fixed the identified SDI issued.
APC	Sonde calibration	13 – Feb - 18	Sonde calibrated, out of water for 30 minutes.
APC	Sonde calibration	15 – Mar - 18	Troubleshoot station and sonde. Issue is with station and not sonde. Replace sonde with calibrated unit. Data is being recorded internally, but not transmitted via Sutron-win because of station issues. A software patch will be installed during the week of April 9 – 13, 2018.
APC	Sonde calibration	11 – Apr - 18	Sonde calibrated, issues with Sutron-Win fixed.
APC	Sonde calibration	2 – May – 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde deployment	2 – May – 18	Sonde redeployed.

Table 2 Data Sonde Status (2018)			
Site	Event Description	Date Range	Notes
PLC-DS	Sonde deployment	2 – May – 18	Sonde redeployed.
APC-MTP	Sonde deployment	9 – May – 18	Sonde redeployed.
PLC-DS	Sonde calibration	17 – June – 18	Sonde calibrated, out of water for 30 minutes; pH sensor not calibrating (sensor failed on June 17/18); turbidity probe not calibrating. Ordering probes to replace faulty pH and turbidity sensors.
APC-MTP	Sonde calibration	18 – June – 18	Sonde out of water; no flow through channel. Removed sonde. Data from period when sonde was perched was removed.
APC	Sonde calibration	19 – June – 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde calibration	19 – June – 18	Sonde calibrated, out of water for 30 minutes.

Note: the data at APC-MTP ends mid-month as flow through the channel dropped significantly, to the point that measuring in-situ data was no longer possible. Also, some issues with PLC turbidity and pH readings are apparent and are related to a malfunctioning sensor. New sensors have been ordered to replace the faulty equipment and these will be swapped out once the new ones arrive.

2.3 CLAUSE 27 – REMEDIATION PLAN

The Remediation Plan received approval on June 26th, 2018. The summary below details the submission – review and approval chronology.

- The Remediation Design, Conceptual Design, was submitted to the AER on February 3rd, 2017.
 - The Proponent received and responded to SIRs from AEP, AER and DFO (GRA)
- A second set of Design Drawings were submitted on June 24, 2017.
 - The Proponent received a second round of SIRs from DFO (GRA) on July 12, 2017.
 - An updated survey of the disturbance area was requested at the time of the second round of SIRs and was completed in August 2017.
- Revised design drawings for APC-1 to APC-4 as well as the corresponding GRA SIR responses were submitted on October 20, 2017.
- Revised design drawings for APC-5 and APC-7 as well as the corresponding GRA SIR responses were submitted on November 6, 2017.
 - The Proponent received SIRs related to the latest design drawings on January 16, 2018.

- Revised design drawings for APC-1 to APC-7 as well as corresponding images from APC-1 to APC-7, a Design Brief and responses to the GRA SIRs were submitted on February 23, 2018.
- A technical face-to-face meeting with the EPO Technical Team, DFO, GRA, AER and AEP occurred on March 9, 2018.
- The DFO Authorization was submitted on March 12, 2018.
 - Subsequent Offsetting Plan meetings related to the Authorization occurred on March 16 and 23, 2018 with DFO, AEP, AER and the Proponent's Team.
 - The Proponent received SIRs on April 11, 2018.
 - The Proponent submitted SIR responses on April 27, 2018.
 - The Proponent received a letter titled, "*Application for a Paragraph 35(2)(b) Fisheries Act Authorization is Complete*" from DFO on May 18, 2018.
- ECP Habitat Assessment Memo was submitted on June 5, 2018.
 - AEP questions were responded to on June 12 and 22, 2018.
 - The FRL was issued on June 22, 2018 with minor amendments to the FRL occurring on July 3, 2018.
- EPO Clause 27-33 Update was submitted to the AER on June 22, 2018 in response to questions received June 14th.

2.4 HUMAN HEALTH RISK ASSESSMENT ("HHRA")

Alberta Health Services was provided a copy of all data collected in 2017 on March 29, 2018. To date, no questions have been received from the various regulatory agencies.

3.0 PLANNED FIELD WORK JULY 2018

The following outlines work planned for July 2018:

- **On-site Water Management**
 - Pumping as required based on weather events and the onsite water management plan.
- **Screening, Procurement and Staging of Materials:**
 - On-going screening, securing all necessary rock material and staging of the material at various identified locations based on the design plan.
- **East Conveyor Pond (ECP) Fish Habitat Enhancements**

- A fish habitat assessment of ECP took place and identified the need for some habitat improvements including the addition cover features. These habitat features will be added to ECP.
- A joint site tour, AER, AEP and DFO was conducted June 28th. Additional instream options downstream of ECP discharge have been identified. Communication is ongoing.
- **Fish Salvage**
 - Fish salvage, as outlined in the Fish Capture and Release Plan of the Authorization, will be completed on APC and identified tributaries associated to the Remediation Design Plan.
- **Fish Exclusion Weir Construction**
 - Upon receipt of DFO Authorization focus will be on the construction of the fish exclusion weir within APC-7 using a pump around isolation method. All necessary fish capture and release methods will be followed as identified in the Authorization as well as in accordance to the FRL. Water quality monitoring will take place throughout the construction period with an on-site QAES overseeing monitoring and reporting activities as per the Water Quality Monitoring Plan presented in the Authorization.
- **APC-1 to APC-4 Construction**
 - Low flow conditions have supported initial works within APC-1, DFO, AER and AEP on June 28, 2018. This work is planned to begin during the week of July 2, weather dependent. Remediation Design Plan work within APC-2 to APC-7 will commence upon receipt of DFO Authorization.

4.0 CONTACT INFORMATION

If you have questions regarding the information published, require data, information or would like to submit comments or questions please email:

Don Guest at DGuest@westmoreland.com

Kari McDonald at Obed-Reg@Sherritt.com

The Obed website was updated monthly. The website includes copies of all plans, data and reports published to date and can be accessed at www.Obed.ca

Appendix 1: June 2018 Data Sonde Data





