



WESTMORELAND COAL COMPANY - *Obed Mountain Mine*

EPO 2013/ CR-34
Obed Mountain Mine
Monthly Status Report - December 2016

Issued January 7th, 2017

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1.0 MONTHLY STATUS REPORT – DECEMBER 2016

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 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.

The following documents are submitted in support of the December 2016 Monthly Status Report:

1. Attachment 1 - December 2016 Data Sonde

2.0 EPO ACTIVITIES –December 2016

2.1 SUMMARY STATUS OF ASSESSMENTS, PLANS AND REPORTS

Table 1 summarises the current status of EPO required plans, assessments and reports. Clauses highlighted in green have been updated, modified or a status changed has occurred in the last thirty days.

TABLE 1 –SUMMARY STATUS

EPO 2013/CR-34 - Clause	Status	Comments
Clause 1 and 2 Immediate Requirements	Complete	Completed in 2013 -2014 Immediate response requirements were executed, the STMP and subsequent LTSMP ensures compliance of requirements on an ongoing basis.
Clause 3 Immediate and Short Term Sampling and Monitoring Plan ('STSMP')	Approved / Complete	The STSMP was executed and then replaced by the Long Term Sampling and monitoring Plan April 2014.
Clause 6 Solids Recovery Plan	Active / Approved /	Complete
Clause 10 Solids Recovery Report	Issued - Active	Update in progress – to be Issued on or before May 15 th , 2017
Clause 11 Impact Assessment Plan	Approved / Active	Proposed amendments to be submitted by March 7 th , 2017.
Clause 15 Impact Assessment Report	Active	Annual update to be published on or before May 15 th , 2017
Clause 17 Long Term Sampling and Monitoring Plan ('LTSMP')	Approved / Active	Active and ongoing. Proposed amendments or recommendations to be submitted on March 7 th , 2017

Clause 22 Wildlife Mitigation Plan	Approved / Active	Updated to be published on or before May 15 th , 2017
Clause 25(a) Fish Sampling and Monitoring Plan	Approved / Active	2016 data to be published on or before May 15 th , 2017
Clause 27 Remediation Plan	In Development	Design submission February 3 rd , 2017.
Clause 34 Waste Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014.
Clause 37 Wastewater Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014.
Clause 39 Monthly Status Reports	Active / Ongoing	Monthly status reports are ongoing.
Clause 41 Final Report	In development	The Final Report is required to be submitted to the AER within 30days of the completion of all work.
Human Health Risk Assessment ('HHRA')	Active	Update to be published May 15 th , 2017

2.2 CLAUSE 15 – IMPACT ASSESSMENT REPORT

The Impact Assessment Report Update will be published May 15, 2017.

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

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. The LTSMP is considered active and ongoing.

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

Currently, we only have the sondes in at PLC-US and APC as these are the only stations that remain unfrozen during most of the winter, although we may have to remove PLC-US if we get a prolonged cold snap.

It looks as though APC either partially froze or became dry for a few days in mid-December but it appears to be operating normally again.

Table 1 Summarizes the Data Sonde status / modifications to the end of December 2016.

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Site	Event Description	Date Range	Note
APC	Sonde calibration	30-Mar	Sonde out of water for 30 minutes
PLC-US	Sonde removal	18-Jan-16	Sonde removed for winter season and sent in for servicing
APC-DS	Sonde removal	9-Dec-15	Sonde was removed for winter season when found frozen. Sent in
Plante Creek	Sonde removal	8-Dec-15	Sonde was not functioning, so removed and sent for servicing.
PLC-US	Sonde re- deployment	31-Mar-16	Sonde was redeployed after servicing
Plante Creek	Sonde re- deployment	31-Mar-16	Sonde was redeployed after servicing
Plante Creek	Sonde calibration	3-Apr-16	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	4-Apr-16	Sonde out of water for 30 minutes
APC	Sonde calibration	16-Jun-16	Sonde out of water for 30 minutes
Plante Creek	Sonde calibration	16-Jun-16	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	14-Jun-16	Sonde out of water for 30 minutes
PLC-US	Sonde error	1-Jun-16	Wildlife chewed through data cable, cutting power off to sonde
PLC-US	Sonde error	22-Jun-16	Wildlife chewed through data cable, cutting power off to sonde
APC	Sonde calibration	6-Jul-16	Sonde out of water for 30 minutes
APC	pH probe changed	6-Jul-16	pH probe had malfunctioned, was changed out with a new probe
Plante Creek	Sonde calibration	4-Jul-14	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	5-Jul-16	Sonde out of water for 30 minutes Attempted to fix station. Wildlife had chewed through PT cable on
PLC-US	Sonde error	5-Jul-16	data.
PLC-US	Sonde calibration	2-Aug-16	Sonde out of water for 30 minutes
PLC-US	Sonde error	2-Aug-16	Change cable after wildlife issue
Plante Creek	Sonde calibration	2-Aug-16	Sonde out of water for 30 minutes
APC	Sonde calibration	4-Aug-16	Sonde out of water for 30 minutes
APC	Sonde calibration	10-Sep	Sonde out of water for 30 minutes
Plante Creek	Sonde calibration	9-Sep	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	9-Sep	Sonde out of water for 30 minutes
APC	Sonde swap	4-Oct-16	Swapped sonde out for one with a working pH probe
Plante Creek	Sonde calibration	5-Oct-16	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	4-Oct-16	Sonde out of water for 30 minutes
Plante Creek	Sonde removal	18-Oct-16	Pulled sonde for winter
APC	Sonde calibration	8-Nov-16	Sonde swapped and calibrated; out of water for 30 minutes
PLC-US	Sonde calibration	8-Nov-16	Sonde swapped and calibrated; out of water for 30 minutes
APC	Sonde calibration	6-Dec-16	Sonde swapped and calibrated; out of water for 30 minutes
PLC-US	Sonde calibration	7-Dec-16	Sonde swapped and calibrated; out of water for 30 minutes

2.4 Clause 22- Wildlife Mitigation Plan

CVRI received approval of the Wildlife Mitigation Plan retroactive to April 24, 2014. Data from the 2016 season will be published in conjunction with the Annual Impact Assessment Report Update, May 15th, 2017.

2.5 FISH SAMPLING AND MONITORING PLAN

The data interpretation specific to the Fish Sampling and Monitoring Plan will be submitted in conjunction with the annual Impact Assessment Report Update May 15th, 2017.

2.6 CLAUSE 27 – REMEDIATION PLAN

The Remediation Plan is in development. Conceptual Design will be submitted to the AER on February 3rd, 2017.

2.7 HUMAN HEALTH RISK ASSESSMENT (“HHRA”)

The HHRA will be updated and submitted on May 15th, 2017 in conjunction with the submission of the Annual Impact Assessment Update.

3.0 PLANNED EPO ACTIVITIES Q1 2017 This section outlines the work plan for the current quarter, January –March 2017. The schedule will be updated and expanded on a Monthly basis and then reviewed on the Monthly EPO call.

TOPIC	Description / Comments	Status
Approval Renewals	Existing Water Act, PLA and Road Use agreements specific to the EPO. New approvals will be added to the work schedule late Q1 to track submission and approval timelines. Remediation Plan (PLA) of ST3 will be submitted after February 15 th , 2017.	Applications to be submitted by January 21 st .
Remediation Plan	In development	Development is on going with (internal) bi weekly progress meetings.
Road / Access	Access plan and storage location for Remediation activities and materials.	Locations are being scouted in January with intent to use existing areas and minimize new disturbance.
Wastewater Management / Pumping Plan Clause 37	The pumping plan which supports the conceptual remediation plan is under review. The pumping plan is under review and development (EPO and PMRU-OMM)	Amendment to be submitted in March after initial review of the Conceptual Design (Clause 39) has been completed by the regulators.
Gravel	Gravel processing will commence in late January. Storage locations will be communicated and approvals requested when necessary.	Construction meeting held January 5 th between EPO and PMRU-OMM operations.
Sediment Trap Inspections, Sonde Inspections	As required under the EPO approved plans.	Ongoing. Status / data is reported monthly.

CONTACT INFORMATION

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

Kari McDonald at 780 420 5866 (ph.) 780 690 0434(cell) or by email at KMcDonald@westmoreland.com

Copies of all plans, data and reports can be accessed at www.Obed.ca