22nd October 2021

Modification to approval MP 06_0236

Chitter and Tailings Reclamation Project

Abstract

Premier Energy Resources Pty Ltd (PER) has approval from the Administrators of Hunter Enviro Mining (in Liquidation) to seek an amendment to MP 06_0236 on their behalf. The purpose of this amendment is to allow for a Bulk Sample Trial extraction and transport of up to 840 tonnes of carbonaceous resource to the nearby Vales Point Power Station. This document sets out the proposed changes to the approval and an assessment of the potential environmental implications of the amendment.

Introduction

MP_06_0236 requires environmental rehabilitation be undertaken and completed at ML1643 Aberdare East. The site is currently derelict, being in a highly disturbed state and causing adverse environmental impacts.

The main contributor to the ongoing adverse environmental impact is that the carbonaceous material (coal fines waste) remaining at the site has elevated levels of sulphur which is a significant limitation to plant growth and causes acid mine drainage impacts to downstream waterways. Long term sustainable rehabilitation for the site can only be achieved by the removal of the coal fines. The Bulk Sample Trial is the first stage in the project which is needed to confirm the requirements of the end user. Ultimately the project will facilitate the rehabilitation outcomes required under the Development Consent (MP_06_0236) and the grant of the Mining Lease (ML1643 Aberdare East) to be achieved.

Purpose of Amendment

This amendment will enable a Bulk Sample Trial on the coal fines waste remaining at ML1643, so we can assess and determine:

a) The suitability of the coal fines waste as a fuel source for the nearby Vales Point Power Station.
b) The commercial viability of the coal fines waste removal as a mechanism to fund the environmental rehabilitation activities yet to be completed at ML1643.
c) The preparation activity necessary to achieve safe extraction, transport and disposal of the coal fines waste from ML1643 to Vales Point Power Station.

This amendment does not alter the project as originally approved. In essence, this amendment will simply allow the proper assessment of the remaining waste material. This will assist in developing the best approach to the rehabilitation of ML1643, thereby enabling the rehabilitation program to be completed as originally envisaged.

Current Status of ML1643

The Aberdare East site originally contained approximately 1.5 million tonnes of carbonaceous reject. At the time of the financial failure of the current leaseholder, approximately 83% of the resource had been extracted and transported offsite. Unfortunately, very little of the rehabilitation obligations envisaged by the consent have been completed and the site has fallen into a derelict state, remaining an ongoing rehabilitation and environmental liability.

As shown on Plate 1 following, the existing site is highly disturbed with no prospect of natural revegetation due to its ongoing acid mine drainage issues. In its current state there will continue to be ongoing environmental degradation including leaching of acids, metals and salts into soils and local waterways.

Plate 1 – ML1643 as of December 2020

PER intend to rehabilitate the tailings reclaim areas as grassland, incorporating a permanent improved pasture. Areas not previously used for coal waste disposal will be returned to native forest with the target community being Spotted Gum – Ironbark Forest. Given the lack of topsoil on site, alternative topdressing material will need to be generated. This will include a mix of imported material blended with corrected subsoil and clays on site.

PER is at an advanced stage in the transfer of the mining lease from the Liquidators of Hunter Enviro Mining, having lodged an application with Regional NSW on 14th April 2021. The application was supported by a Mining Operations Plan covering the extraction of the remaining resource and final rehabilitation of the site and executed by the Liquidator of Hunter Enviro Mining.

The Trial Plan

The Bulk Sample Trial plan has been developed in conjunction with Delta Electricity, Vales Point Power Station (VPPS). It is designed to address Premier Energy Resources requirements as stated under the *Purpose of Amendment*, and VPPS's business requirements as well as meeting all regulatory requirements.

Plan Activities at ML1643 Aberdare East

PER proposes a simple operation involving transporting the tailings direct to Vales Point Power Station who has indicated its willingness to enter into a commercial contract should the trial be successful. The specific activities to be undertaken at ML1643 Aberdare East during this Bulk Sample Trial will be:

a) The **PREPARATION** of three (3) small stockpiles, each of approx. dimensions:
   - Length: 20 metres
   - Width: 8 metres
   - Height: 2.5 metres
   - Tonnage: 400 tonnes

b) The **TRANSPORTATION** of approximately 840 tonnes of material by road registered trucks over 2 consecutive days to the Vales Point Power Station.

c) **DESILT CATCHMENT DAMS** and associated water course within the lease area to improve the effectiveness of the water management system.

Preparation at ML1643 Aberdare East

The purpose of the stockpiles is to enable monitoring of moisture content (drying time) and to prepare the bulk sample for transport to Vales Point Power Station (Delta Electricity).

The bulk sample requires preparation time to dry the tailings. The preparation work to be undertaken will involve an Excavator and Truck operating between 7.30am and 4.30pm on two (2) consecutive days to create the small stockpiles and de-silt the two (2) main water management dams on the site. The loader will subsequently be required for up to 4 hours per day to turn and manage the stockpiles.

Extraction of sample material will be by excavator from the already uncovered tailings area as marked in **green** on the map following. The extracted material will be loaded into a truck and transported to the stockpile area as marked in **red** on the map following. These small stockpiles will be created within the disturbed area of the ML1643 site immediately alongside an existing large stockpile of material. This location ensures there is no impairment of the existing visual aspect of the site and importantly, ensures any water run-off will be managed through the existing water management system (see Discharges).

When these stockpiles are created, they will be covered by tarps to ensure their integrity.

Transportation from ML1643 Aberdare East

When preparation of the stockpiles including drying is complete, approximately 840 tonnes of the bulk sample will be loaded onto road registered trucks by a frontend loader and transported to Vales Point Power Station.

The 64km route from ML1643 Aberdare East to the Vales Point Power Station will be by way of:

a) 900 metres private haul road to Government Circuit,
b) 600 metres to a right turn into Caledonia Street (B82),
c) Continue 25km on B82 to M1,
d) Continue 26km on M1 to Sparks Road,
e) Use the Doyalson Link Road to A43,

f) 8km on A43 to a left turn into Ruttleys Road,
g) 3km on Ruttleys Road to VPPS.

The transportation will be conducted over 2 consecutive days, with 12 loaded truck movements each day between 7.30am and 3.30pm.

The road trucks will be General Access Vehicles (GAV) not exceeding 19 metres length.

Desilt Catchment Dams

The site was an active mining lease until 2015, however, during its period of closure since 2015, the two (2) main catchment dams within the site have silted up. PER will as part of these proposed works de-silt the dams and reinstate the proper drainage channel between the two (2) dams as shown in **blue** in the map following. It is important to note that the material to be extracted from the dams will be contained within the existing area of the site. Specifically, material extracted from the main catchment dam will be added to the existing fines emplacement adjacent to the main dam. Material extracted from the dam at the head of the dispersing field will be transported 100 metres to an existing emplacement within the site for later use in the rehabilitation activities of the site. Further detail about the ***Water Management*** approach at ML1643 can be found in the attached document entitled *ML1643 Aberdare East – Supporting Information*.

Plan Activities at VPPS

a) Sampling proposed to be undertaken as part of the trial.

Samples will be taken from the source stockpile (Aberdare East) and each truck delivery for comparison. VPPS has a sampling and analysis contractor (Bureau Veritas) who will be sampling as per the VPPS regular procedure for coal delivered by truck. In addition, an increased sample testing regime will be employed above the normal procedure during this trial to ensure the material being received is well characterised and understood.

b) Key factors and measurable targets that will determine the success of the trial as to whether the process extends beyond the trial period.

The trial for VPPS is primarily aimed at whether the stockpile operators can adequately unload, push to the reclaim area, blend and bunker the 420 tonnes per day expected if the contract proceeds. The received material is not intended to be stockpiled, so the process will be to blend and bunker the material for use on the day it is received.

The trial will also assess the handleability of the received (fines) material with specific focus of its behaviour on conveyors and through chutes. VPPS will be determining whether the material blocks chutes or blows off conveyors.

Once the fines reach the feeder/milling plant there are not expected to be any difficulties with processing and combustion of the material. The mills will however be monitored for mill current, and outlet temperature, to ensure the drying capacity of the mill is acceptable for the received material.

The impact on NOx/SOx emissions will be closely monitored throughout the 2-day trial as per the requirements of EPL 761.

c) Assessment of environmental impacts at Vales Point Power Station, including the predicted impact of emissions during the burning of the fines at the power station.

The material will not be stockpiled so fugitive emissions would only be expected during unloading and a water tanker is routinely used to keep dust down.

The proportion of this material as part of the overall days burn will be between 3wt% (2-unit normal operation in peak seasons) and approx. 8.5wt% (1-unit operation eg during an outage). It is not expected to increase NOx emissions but may slightly increase SOx emissions. We note the material is expected to have a reasonably high specific energy above 23GJ/t (see *Ultimate Analysis* as attached) so there will be no impact on efficiency when compared to the coal currently fired, resulting in no increase of CO2 emissions.

Environmental impacts should be no different to any of the other coals fired with the exception of the higher sulphur content for the fines.

d) How will the waste be managed on site at Vales Point Power Station with respect to components including (but not limited to) run off/leachate management, dust and noise.

The material will be unloaded on the existing coal stockpile and fed straight to the units. Dust will be managed via water truck. No additional noise due to this activity.

Summarised Trial Parameters

Unloading

a) material comes out of trucks easily
b) material not contaminated
c) material not sloppy
d) material not dusty

Sampling

a) sample within reject parameters for contract

Stockpile operations

b) dozers can handle volume ok
c) reclaim setup works ok
d) bay emptied ready for next set of deliveries ok

Coal transfer to station

a) doesn't block chutes

b) doesn't spill unnecessarily
c) doesn't blow away

Milling plant

a) drying capacity acceptable

Environment

b) SOx readings within limits
c) NOx readings within limits

Failure of any of the above would lead to not proceeding with a contract.

Proposed Modifications to MP 06_0236

The proposed changes to the consent do not involve increasing tailings extraction rates, increasing the footprint of the site or alter the environmental impact predictions which formed the basis of the original approval. The modification satisfies the provisions of Section 4.55 of the EP&A Act which requires that:

- ❒ the proposed modification can only be approved if the modification results in minimal environmental impact and,
- ❒ the development once modified is substantially the same development as previously approved.

Given the project as originally approved was at an advanced stage of extraction prior to cessation of operations, the removal of this small 840 tonne of resource requires significantly less truck movements and extraction equipment on site.

Environmental Impact Assessment of Proposed Modification

The proposed amendment has been assessed in terms of:

- ❒ The potential environmental consequences of the modification compared to the development that was assessed and approved.
- ❒ Whether or not the development will remain substantially the same as originally approved.
- ❒ Assessment of any qualitative and quantitative differences resulting from the modification such as changes in scale, intensity, land use, the need for additional environmental controls, project life or hours of operation.
- ❒ The extent, duration and severity or impacts compared to the original approved development.

The remaining 250,000 tonnes of carbonaceous waste on site was previously approved to be removed as part of the original 1.5 million tonnes. The environmental consequences of removing the 840 tonnes of material should be viewed in context of the original development. This involved removal of all the coal waste to allow rehabilitation of the site to proceed. The rehabilitation of the site was a key justification in the original approval process however this stage cannot proceed until the all the waste is removed. This particular waste was produced from the high sulphur Greta Seam and produces acid when left to oxidise. This acid drainage prevents effective rehabilitation by limiting long term success. This was recognised in the original approval and so the proposed modification, which allows further assessment of the remaining waste, satisfies the requirement of being substantially the same.

A summary of the potential environmental impacts of the proposed modification is provided in Table 1.

Table 1 – Comparative Environmental Assessment

Project Element	Approved Development	Proposed under Modification
Operational Life	Until 31st December 2018	2 days of transportation during October 2021.
Material Extraction	1.5 million in total	840 tonnes.
Transport	By road to Hebburn for processing or direct to local power stations	By road to Vales Point Power Station.

	Commitment to limit to 18 truckloads per hour (equivalent to 6,500 tonnes per day)	Commitment to limit transport to 420 tonnes per day. Commitment to limit truck loads to 12 per day (average of 1.3 trucks per hour).
Hours of operation	7 am to 6 pm Monday to Friday only (excepting Public Holidays)	Unchanged but currently planning 7.30am to 4.30pm
Tailings extraction method	Mobile plant producing up to 6,500 tonnes per operational day	Mobile plant producing up to 600 tonnes per operational day
Environmental Performance measures	As listed in Schedule 3	Unchanged for Aberdare East site. No impact on the other named sites.
Rehabilitation Objectives	As listed in Condition 12 and 13 of Schedule 3	Unchanged
Environmental Management Conditions	As listed in Schedule 5	Unchanged

The proposed modification will not increase the scale, severity and intensity of impacts from the development, and will in fact be significantly reduced compared to the original project.

We have commenced consultation with Cessnock City Council and the local community in anticipation of recommencement of the rehabilitation work for ML1643. There is a general understanding in the local community that the original project was not completed and there is a desire to see the site fully rehabilitated. We understand there were some community concerns in relation to the previous level of truck movements. These concerns are addressed by our new traffic management plan which will see:

- ❒ A significantly lower level of truck movements than previously occurred.
- ❒ Less concentration of truck movements and no intense truck campaigns.
- ❒ Ongoing consultation with the local community.

PER have committed to perform all works in accordance with the existing MOP applicable to ML1643, Mining Regulations and Resource Regulator requirements. While the proposed work is only a two-day duration, all activity and conduct will have specific regard for the following:

Safety – any machinery to be used on the site will be “mine spec” and operated by certified operators. The company retained by PER to perform the works is J&B Excavations who has vast experience in mining and quarrying, particularly in wet conditions. There will be no “at height” or “at depth” works, and stockpiles will have a maximum height of 2.5 metres with a 35-degree angle of repose.

Noise – the proposed machinery to be used between 7.30am and 4.30pm on two (2) consecutive days during a working week will include a CAT 335 Excavator and a CAT 740 Dump Truck. On subsequent days, a Volvo front-end loader equivalent to a CAT 966 will be needed to manage the small stockpiles. The frontend loader will not operate for more than four (4) hours on any day and not more than two (2) of five (5) working days in any week (Mon – Fri). The frontend loader will only be required for a period of up to 4 weeks to achieve the necessary stockpile drying outcomes to perform the transportation element of this trial. The site will remain closed and non-operational on weekends.

Dust –the material in situ is quite wet, presenting at above 20% moisture, so dust at point of preparation will be minimal. The three (3) small stockpiles will be covered by tarps after their formation to ensure their integrity and minimise any potential for wind-blown dust as the material dries. This work will not create additional dust above the ambient conditions of the site.

Discharges – the area within the site to be used for the bulk sample stockpiles is alongside an existing emplacement of tailings and as such, any runoff due to rain events will be captured and managed through the water management system of the site. These works will not increase or change the area of the site and will therefore not create increased discharges.

Environmental – the activity at the site will not remove or expose any new areas within the site. All existing ground cover will remain intact. There will be no visual impairment of the site as a result of these activities.

Community Consultation – PER has doorknocked and advised all the nearby residents on Government Circuit, Jeffries Street and across the railway corridor on Cessnock Street of the impending activity. No objections were noted with most residents being positive about the process and outcome.

Other Consultation – PER has had interactions with Cessnock City Council, Resources Regulator and now the EPA as well as Vales Point Power Station. We have attached copies of communications with each of these parties as supporting evidence for this MOD request.

Conclusion

This proposed modification is necessary to allow further assessment of the potential to conclude the project as originally approved. Being close to completion at the time of financial failure of the previous operator, the maximum scale and intensity of the project has passed and is now almost at the stage of final rehabilitation. Without the rehabilitation phase, the primary justification of the original project will not be realised.

PER is a newly formed and motivated company consisting of environmental and engineering specialists that offer sustainable rehabilitation and viable energy solutions recaptured from mine waste. PER with the assistance of the Resources Regulator, has identified the Aberdare East site within ML1643 as an ideal starting point to gain both experience and reputation which would lead to other opportunities to recapture mine waste from many other legacy mine sites throughout NSW.

PER has secured a market for the material and is required to complete this bulk sample trial as a final step to completing the contract negotiation. It is anticipated the trial will be completed in November 2021 with full supply to Vales Point Power Station commencing in late 2021.

Should you require further information or clarification please do not hesitate to Ron Read at Premier Energy Resources on (M) 0447 776 993 or at (E) ron.read@premierenergy.com.au
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Yours faithfully,

Ron Read

Chief Communications (& Liaison) Officer

PREMIER Energy Resources

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