

# Weekly Site Report

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BLACK ROCK WEEKLY REPORT

Weekly PSD Report  
EPIROC SA

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## Weekly Service Report – Black Rock Mine Operations

<b>Report type:</b>	Weekly	<b>Submitted to:</b>	Sello Taku and Sipho
<b>Week Date:</b>	20 September 2025	<b>End Date</b>	26 September 2025
<b>Reported By:</b>	Philip Moller		
<b>BEV:</b>			
<b>Service Tech:</b>	Ivan Phiri	<b>Service Tech:</b>	Lukas Serumola
<b>Service Tech:</b>	Patricia Mazinyo	<b>Service Tech Assistant:</b>	Patrick Yoko
<b>Specialist:</b>	Frikkie van der Walt		
<b>Field Service:</b>			
<b>Service Tech:</b>	Alpheus Mareke	<b>Service Tech:</b>	Mathews Mosemane
<b>CAS Project:</b>			
<b>Team Leader:</b>	Bradley Nast	<b>Service Tech:</b>	Phineas Sibanda
<b>Service Tech:</b>	Julius Manamela	<b>Service Tech:</b>	Joseph Mampa
<b>Certiq Project:</b>			
<b>Team Leader:</b>	Segunda Fernando	<b>Service Tech:</b>	
<b>Mobilaris:</b>			
<b>Team Leader:</b>	Rupert Grobler		

### Report Summary

#### General Summary

The purpose of this report is to give an overview of all the Epiroc activities at Blackrock Mine Operations (BRMO).

#### BEV - Critical Issues Summary

- Buckets of ST14 machines in poor condition. Audit shared with Piet and Simon
- Critical spares list review process started. Waiting on response from BR for a meeting date.

- DT150 not performing. Looking into issues. Brake pedal and valve need to be changed.

### CAS L9 Implementation - Critical Issues Summary

- All fleet except BEV machines in NCH3 is currently operating on CAS level 9.

### Certiq & Mobilaris - Critical Issues Summary

- Machine availability to review the installation and collect evidence for the commissioning documents
- CAS level 9 trainings to be completed.

### BEV – MH4.0 Upgrades

- MH4.0 software upgrades project update to be sent for approval.

### Passport 360 Compliance

- BEV Technicians: **96%**
- CASL9 (Gloria): **98%**
- CASL9 (Nch2): **97%**
- CAS L9 (Nch3): **97%**
- Certiq & Mobilaris N2: **97%**
- Certiq & Mobilaris Gloria: **98%**
- Epiroc SLA: **84% - Contract stopped. Pack to be archived**

## BEV Report

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### Weekly machine utilization summary:

#### 1. *Saturday 20 September 2025:*

2. FL 98 -
3. FL 99 -
4. FL 107 -
5. FL 108 -
6. FL 112 -
7. FL 113 -
8. DT 146 -
9. DT 147 -
10. DT 149 -
11. DT 150 -
12. DT 162 -
13. DT 163 -
14. DT 171 -

### *Sunday 21 September 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 -
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 -
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 -

### *Monday 22 September 2025:*

1. FL 98 -
2. FL 99 - Night shift: Electrical breakdown – 800V Battery - BMS(VPY-83) Error found E-Stop 1 activated on north volt portal and not showing on the RCS screen. (19H46min)
3. FL 107 - Afternoon Shift: Mechanical breakdown – Mud guard conveyor loose. Tightened conveyor. (3H08min)
4. FL 108 -
5. FL 112 -
6. FL 113 – Night shift: Electrical breakdown – No feedback. (11H11min)
7. DT 146 -
8. DT 147 - Morning Shift: Mechanical breakdown – No feedback. (29min)
9. DT 149 - Afternoon shift – 3<sup>rd</sup> party supplier fault – STRATA. (16H01min)
10. DT 150 - Morning Shift: Mechanical breakdown – hydraulic oil overheating, machine doesn't cut the battery but goes out of gears when overheating. Noticed front and rear axle temp goes to 95°C which can be caused by dragging brakes, and hydraulic oil up to 90°C which can also be caused by clogged coolers. Recovered the machine to the workshop and cleaned the cooler where I could access. Top left fan is also faulty; Brakes pressure is about 6 bar less than the required pressure. Further fault finding to be done. Did not test the machine after cleaning the cooler. (1D07H25min)
11. DT 162 -
12. DT 163 -
13. DT 171 -

### *Tuesday 23 September 2025:*

1. FL 98 -
2. FL 99 - Afternoon shift: Electrical breakdown; 800V battery - Was standing during shift with not connecting to battery. Was fixed by electrician. Not sure what was wrong. (12H40min)
3. FL 107 - Day shift: 3<sup>rd</sup> party supplier fault – Petroman. (1H16min)  
Afternoon shift: Electrical breakdown – No feedback. (2H33min)
4. FL 108 - Morning shift: Electrical breakdown; 24V system – Replaced wiper blade. (1H16min)
5. FL 112 -

6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 - Morning shift: 3<sup>rd</sup> party supplier fault: Strata. (2H13min)
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 – Night shift: Mechanical breakdown – Standing from 01:15 in the morning - standing with oil leak. Took a lot of time to find it. No feedback what was done to fix the oil leak. (8H31min)

### *Wednesday 24 September 2025:*

1. FL 98 -
2. FL 99 - Morning shift: Electrical breakdown – No feedback. (37min)
3. FL 107 - Morning shift: Mechanical breakdown – Belly plate – Mechanic still needs to fit parts before battery can be installed. (12H48min)
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 - Morning shift: 3<sup>rd</sup> party supplier fault: Strata. (2H12min)
10. DT 150 -
11. DT 162 -
12. DT 163 - Morning shift: Electrical breakdown; Aircon – No feedback. (2H06min)
13. DT 171 –

### *Thursday 25 September 2025:*

1. FL 98 -
2. FL 99 - Morning shift: Electrical breakdown – 800V – No feedback. (1H50min)  
Night shift: (Electrical breakdown: 800V Battery – No feedback. (11H19min))
3. FL 107 -
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 - Night shift: 3<sup>rd</sup> party supplier fault – Strata. (39min)
8. DT 147 -
9. DT 149 - Afternoon shift: 3<sup>rd</sup> party supplier fault – Strata. (36min)
10. DT 150 -
11. DT 162 - Night shift: Mechanical breakdown; Brake system – No feedback. (8H)
12. DT 163 - Afternoon shift: 3<sup>rd</sup> party supplier fault – Strata. (16H41min)
13. DT 171 – Night shift: Mechanical breakdown; Hydraulic oil leak – No feedback. (16H45min)

*Friday 26 September 2025: (Pay Friday)*

1. FL 98 -
2. FL 99 -
3. FL 107 -
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 -
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 -

Planned work for the coming week:

- Onboarding of artisans to assist with the DC/DC campaign.

SERVICES:

Maintenance Schedule Sept/Oct 2025				
Monday	Tuesday	Wednesday	Thursday	Friday
29-Sep-25	30-Sep-25	1-Oct-25	2-Oct-25	3-Oct-25
DT0131	DT0163	DT0160	DT0154	DT0119
FL0099	FL0091	FL0113	FL0108	FL0107
HD0056	HD0057	HD0058	HD0061	HD0062

## Battery and Charger Status Report

### General summary

#### ST14 – B4 battery packs

- We currently have 10 x ST14 – B4 battery packs and 6 x ST14 machines operational underground. This is equal to the committed ratio of 1.6 batteries per machine.

### MT42 – B5 battery packs

- We currently have 12 x MT42 – B5 battery packs operational underground. This is above the committed ratio of 1.6 batteries per machine.

### 160 kW Chargers

- Charger 4 Module 1 is removed. Module is faulty and needs to be replace. BRMO need to order new module.
- Charger 5 Module 4 is removed. Module is faulty and needs to be replace. BRMO need to order new module.
- Charger 7 one Module is switch off. It trips mini sub braker when it is switch on.
- Charger 8 one Module is switch off. It trips mini sub braker when it is switch on.
- Post 3,6 and 7 CCS connector cables need to be replaced. New 300A cables was order and received. Need to order upgraded spring set.

### General

- Damage audits have been completed on battery packs, communication for repairs and battery upkeep was sent to BRMO with the respective quotations to ensure adequate battery upkeep.
- There are more noted charger stops; this is being investigated with initial indications being worn out charger and CCS battery inlet connectors. DCDC campaign to kick off once technicians are onboarded.
- VPX-00017, VPX-00048 and VPY-00048 fire suppression canister pressure is low and needs to be replaced. DFO technicians must come and inspect systems. Acces will be organised once their details are shared.

Table 1: Battery pack availability for week 2025

Battery Type	Battery ID	Status	Comment
B4 - ST14	VPY-00011	Working	
B4 - ST14	VPY-00031	Working	
B4 - ST14	VPY-00051	Working	
B4 - ST14	VPY-00048	Breakdown	TMS needs aircon gas.
B4 - ST14	VPY-00049	Working	
B4 - ST14	VPY-00088	Working	
B4 - ST14	VPY-00086	Working	
B4 - ST14	VPY-00076	Working	
B4 - ST14	VPY-00083	Working	
B4 - ST14	VPY-00041	Working	
B5 - MT42	VPX-00016	Working	
B5 - MT42	VPX-00015	Working	
B5 - MT42	VPX-00023	Working	
B5 - MT42	VPX-00017	Working	
B5 - MT42	VPX-00010	Working	
B5 - MT42	VPX-00050	Working	
B5 - MT42	VPX-00031	Working	
B5 - MT42	VPX-00036	Working	



B5 - MT42	VPX-00028	Working	
B5 - MT42	VPX-00026	Working	
B5 - MT42	VPX-00024	Working	
B5 - MT42	VPX-00048	Working	
B5 - MT42	VPX-00044	Surface	On machine: 8997901500

### Battery overheat summary:

- Nothing for the week reported

### FST Report Summary

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#### Field Service on site:

- FL106 – Overheating issues. Cummins and Epiroc to assist. Waiting on order.

### CAS Report Summary

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<b>Report Type:</b>	Weekly	<b>Project Leader:</b>	Hennie van Niekerk
<b>Start Date:</b>	20-Sept-2025	<b>Report By:</b>	Bradley Nast
<b>End Date:</b>	26-Sept-2025	<b>Contract No:</b>	BPE145D

#### Critical Issues

1. BEV machines software is still not upgraded yet live on CAS L9.
2. Team is busy with software update and commissioning in NCH2.

#### Progress Update

1. All diesel TMMs in NCH3 software is upgrade and commissioned on CAS L9.
2. All ST14s in NCH2 are live on L9 but FL86, the machine has been standing on a major breakdown.
3. Team is busy commissioning ST1030s with Nerospec in NCH2.

## Certiq & Mobilaris Report Summary

### General summary

NCH 2 and Gloria are in the project phase. Installations are complete and commissioning is in progress. NCH3 is on a support contract, However the contract has lapsed.

#### NCH2:

25 machines scoped for the smart enablement project:

- 3 Machines are scrapped
- 2 Machines' commissioning document sent for signature by the Black Rock project team; those are currently not communicating.
- 12 Machines are complete, and Commissioning documents are signed.
- 1 machine work in a section with no Wi-Fi. Can't test and commission. Issue raised with Wayne
- 1 Machine not in use. Mine manager reserved future projects.
- 7 machines are under investigations.

#### Gloria:

13 machines scoped for the smart enablement project:

- 3 machines completed and commissioned.
- 8 machines under investigations.
- 2 machines, ECU not giving out date. It was report to Black Rock. Replacement is expected.

#### NCH3:

1. **Support contract expired.**

Support contract to be reviewed before S2 optimisation project kicks off.