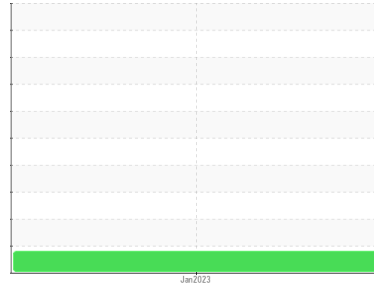




# PROBLEM SUMMARY

Sample Rating Trend



ISO

Machine Id  
**BROYEUR NORD PALIER L.P.**  
 Component  
**Bearing**  
 Fluid  
**ESSO UNIVIS EXTRA (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

Nous recommandons le remplacement des filtres de ce composant. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration.

## PROBLEMATIC TEST RESULTS

Sample Status	ATTENTION	---	---
Particles >4µm	ASTM D7647 >10000 ▲ <b>16882</b>	---	---
Oil Cleanliness	ISO 4406 (c) >20/18/14 ▲ <b>21/17/11</b>	---	---

Customer Id: ALCJONBHB

Sample No.: WC0531978

Lab Number: 02534585

Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

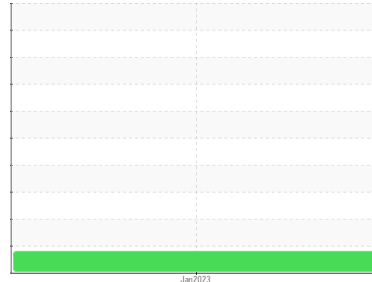
Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**BROYEUR NORD PALIER L.P.**

Component

**Bearing**

Fluid

**ESSO UNIVIS EXTRA (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

Nous recommandons le remplacement des filtres de ce composant. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration.

### Wear

Les taux d'usure de tous les composants sont normaux.

### ▲ Contamination

Il y a une légère quantité de limon (particules de 4 à 14 microns) dans l'huile. La teneur en eau est négligeable.

### Fluid Condition

Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0531978</b>	---	---
Sample Date	Client Info	<b>11 Jan 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---
Oil Age	hrs	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ATTENTION</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	---	---
Iron	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	---
Nickel	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---
Silver	ppm	ASTM D5185(m)	<b>0</b>	---
Aluminum	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Lead	ppm	ASTM D5185(m) >20	<b>0</b>	---
Copper	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Antimony	ppm	ASTM D5185(m)	<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 2.9	<b>&lt;1</b>	---
Barium	ppm	ASTM D5185(m) 1.5	<b>0</b>	---
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	---
Manganese	ppm	ASTM D5185(m)	<b>0</b>	---
Magnesium	ppm	ASTM D5185(m) 0	<b>0</b>	---
Calcium	ppm	ASTM D5185(m) 37	<b>50</b>	---
Phosphorus	ppm	ASTM D5185(m) 235	<b>323</b>	---
Zinc	ppm	ASTM D5185(m) 298	<b>408</b>	---
Sulfur	ppm	ASTM D5185(m) 1069	<b>1275</b>	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---

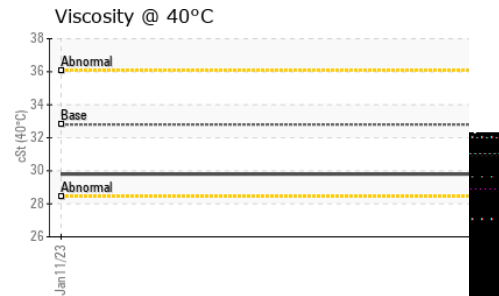
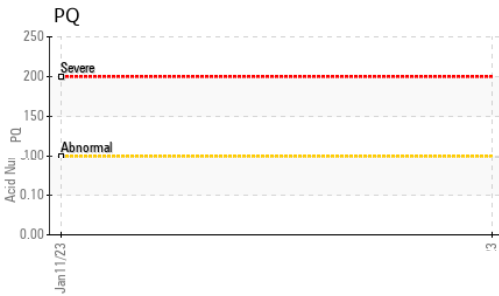
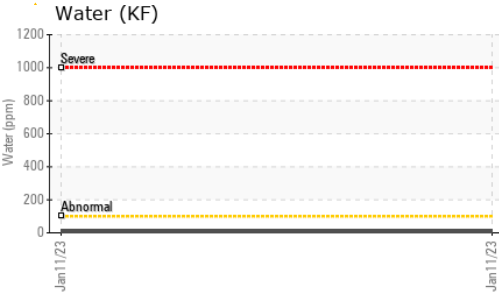
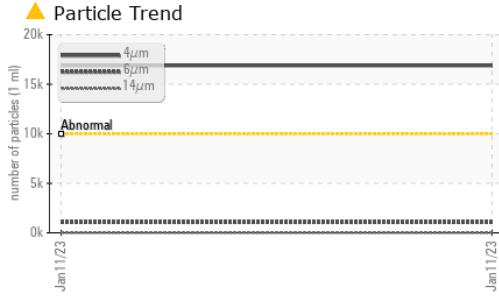
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	---
Sodium	ppm	ASTM D5185(m)	<b>0</b>	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---
Water	%	ASTM D6304* >2	<b>0.001</b>	---
ppm Water	ppm	ASTM D6304*	<b>7.4</b>	---

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>▲ 16882</b>	---
Particles >6µm	ASTM D7647	>2500	<b>1061</b>	---
Particles >14µm	ASTM D7647	>160	<b>14</b>	---
Particles >21µm	ASTM D7647	>40	<b>4</b>	---
Particles >38µm	ASTM D7647	>10	<b>0</b>	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>▲ 21/17/11</b>	---

# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.49</b>	---	---

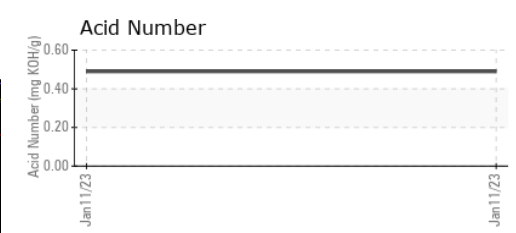
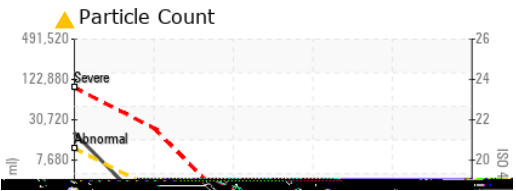
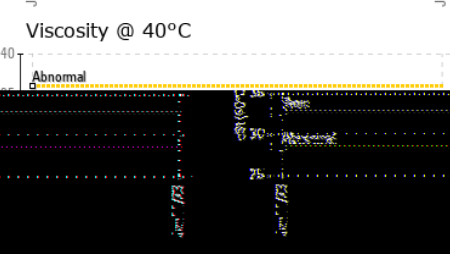
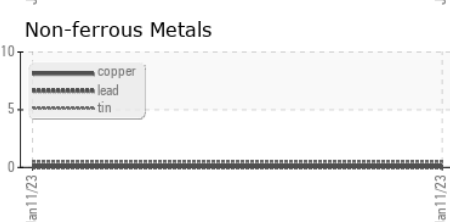
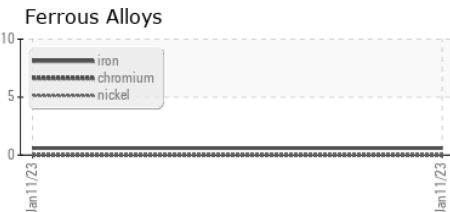
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32.8	<b>29.8</b>	---	---

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Rio Tinto Alcan - USINE VAUDREUIL BHB (Mill - Aluminum)  
**Sample No.** : WC0531978 **Received** : 20 Jan 2023 1955 BD. MELLON, EDIFICE 401  
**Lab Number** : **02534585** **Diagnosed** : 25 Jan 2023 JONQUIERE, QC  
**Unique Number** : 5515584 **Diagnostician** : Kevin Marson CA G7S 4L2  
**Test Package** : IND 2 ( Additional Tests: KF, PRTCOUNT, TAN Man ) Contact: Dany Bonneau  
 To discuss this sample report, contact Customer Service at 1-800-268-2131. dany.bonneau@riotinto.com  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (418)718-7771  
 Validity of results and interpretation are based on the sample and information as supplied. F: (418)699-2421