



# RAPPORT D'ANALYSE D'HUILE

USURE	<b>NORMAL</b>
CONTAMINANTS	<b>NORMAL</b>
ÉTAT DU FLUIDE	<b>NORMAL</b>

Secteur

## Production d'Énergie Électrique/Salle des Machines

Identité de la machine

### 13B02#02 (S/N 524 101 595)

Composant

### Moteur auxiliaire 2

Fluide

### PETRO CANADA DURON-E XL 15W40 (280 LTR)

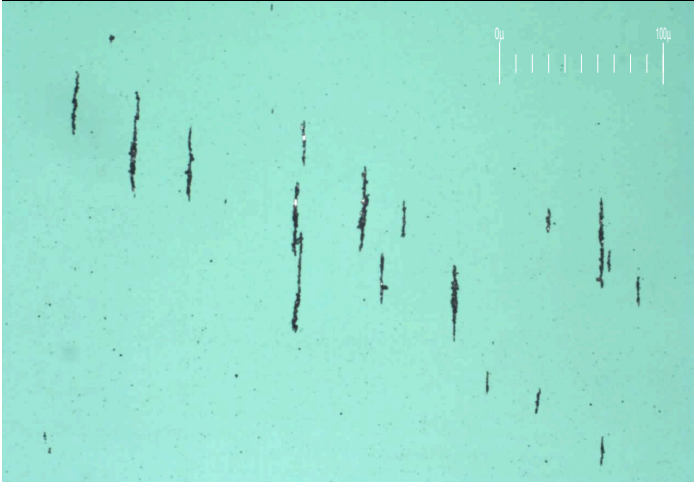
## RECOMMANDATION

Resample at the next service interval to monitor.

## USURE

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

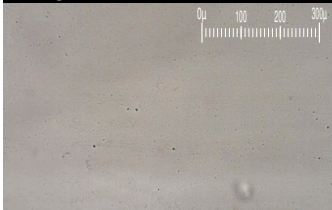
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW



Test	UOM	Method	Limit/Abn	Current	History1	History2
Numéro d'échant.		Client Info		<b>WC0829226</b>	WC0751392	WC
Date d'échant.		Client Info		<b>23 Oct 2023</b>	01 Apr 2023	18 Oct 2022
Âge d la Machine	hrs	Client Info		<b>34817</b>	32270	31472
Âge de l'huile	hrs	Client Info		<b>0</b>	658	1953
Âge du filtre	hrs	Client Info		<b>33697</b>	658	1953
Huile changée		Client Info		<b>Not Changd</b>	Not Changd	N/A
Filtre changé		Client Info		<b>N/A</b>	Not Changd	N/A
Statut de l'échant.				<b>NORMAL</b>	NORMAL	NORMAL

PQ		ASTM D8184*		<b>0</b>	0	---
Fer	ppm	ASTM D5185(m)	>35	<b>6</b>	4	8
Chrome	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Titane	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Argent	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminium	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	1
Plomb	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	0
Cuivre	ppm	ASTM D5185(m)	>65	<b>&lt;1</b>	1	2
Étain	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Grosses particules		DR-Ferr*		<b>7.5</b>	6.7	---
Petites particules		DR-Ferr*		<b>5.7</b>	5.4	---
Total de particules		DR-Ferr*	>---	<b>13.2</b>	12.1	---
Pourcentage de grosses particules	%	DR-Ferr*		<b>13.6</b>	10.7	---
Indice de sévérité		DR-Ferr*		<b>13</b>	9	---
Frottement ferreux	Scale 0-10	ASTM D7684*		<b>2</b>	2	
Glissement ferreux	Scale 0-10	ASTM D7684*				
Copeaux ferreux	Scale 0-10	ASTM D7684*				
Roulement ferreux	Scale 0-10	ASTM D7684*		<b>1</b>	1	
Rodage ferreux	Scale 0-10	ASTM D7684*				
Sphères ferreuses	Scale 0-10	ASTM D7684*				
Oxydes ferreux noirs	Scale 0-10	ASTM D7684*		<b>1</b>	1	
Oxydes rouges ferreux	Scale 0-10	ASTM D7684*				
Corrosion ferreuse	Scale 0-10	ASTM D7684*				
Autres particules ferreuses	Scale 0-10	ASTM D7684*				
Frottement non-ferreux	Scale 0-10	ASTM D7684*				
Glissement non-ferreux	Scale 0-10	ASTM D7684*				
Copeaux non ferreux	Scale 0-10	ASTM D7684*				
Roulement non-ferreux	Scale 0-10	ASTM D7684*				
Autres particules non-ferreuses	Scale 0-10	ASTM D7684*				

## CONTAMINANTS

There is no indication of any contamination in the oil.

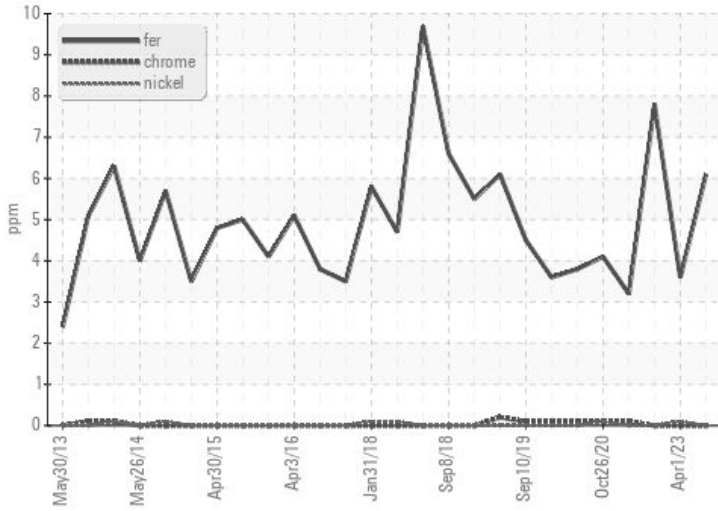
Silicium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Essence		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol		WC Method		<b>NEG</b>	NEG	NEG
% de suie	%	ASTM D7844*		<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.7</b>	5.9	7.2
Sulfatation	Abs/.1mm	ASTM D7415*	>30	<b>19.6</b>	18.5	20.1
Eau émulsifiée	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG
Matière carbonée	Scale 0-10	ASTM D7684*				
Sable/saleté	Scale 0-10	ASTM D7684*		<b>1</b>	1	
Fibres	Scale 0-10	ASTM D7684*				
Sphères	Scale 0-10	ASTM D7684*				
Autres particules	Scale 0-10	ASTM D7684*		<b>1</b>	1	

## ÉTAT DU FLUIDE

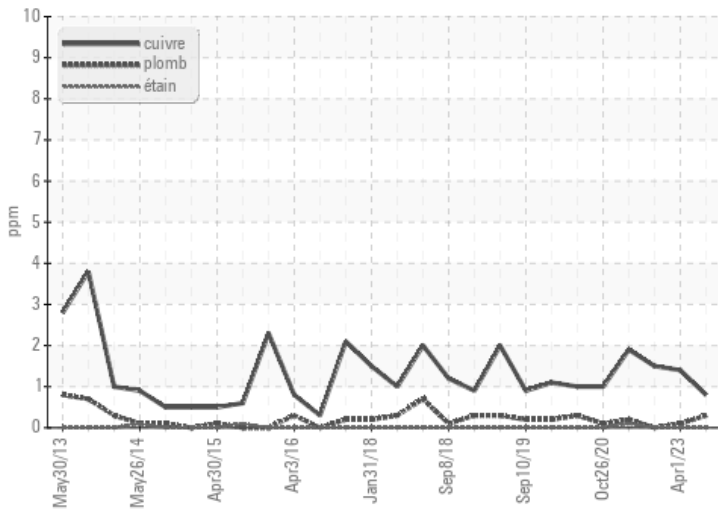
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	1	1
Bore	ppm	ASTM D5185(m)	1	<b>3</b>	2	2
Baryum	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdène	ppm	ASTM D5185(m)	60	<b>62</b>	61	62
Manganèse	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnésium	ppm	ASTM D5185(m)	1010	<b>1008</b>	1000	1006
Calcium	ppm	ASTM D5185(m)	1070	<b>1105</b>	1132	1137
Phosphore	ppm	ASTM D5185(m)	1150	<b>1048</b>	1139	1138
Zinc	ppm	ASTM D5185(m)	1270	<b>1248</b>	1225	1239
Soufre	ppm	ASTM D5185(m)	2060	<b>2645</b>	2734	2712
Oxydation	Abs/.1mm	ASTM D7414*	>25	<b>15.8</b>	14.2	16.0
Indice d'alcalinité	mg KOH/g	ASTM D2896*	10.0	<b>8.84</b>	9.86	---
Visc 100°C	cSt	ASTM D7279(m)	15.54	<b>13.2</b>	13.7	13.6
Dégradation du lubrifiant	Scale 0-10	ASTM D7684*				

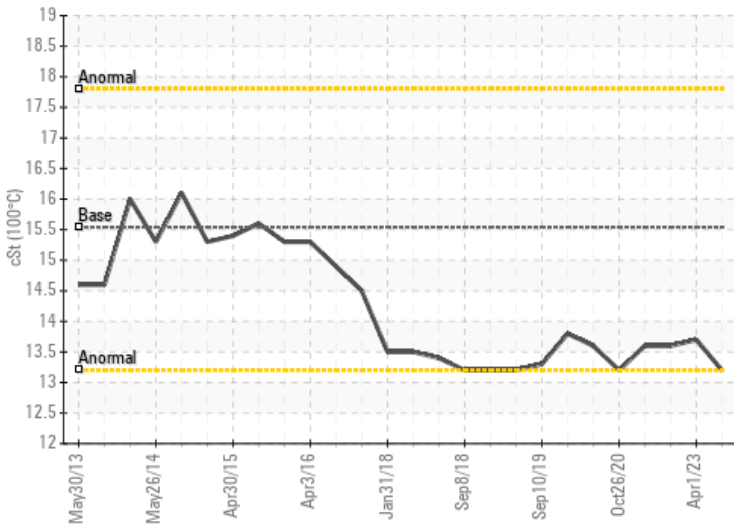
### Alliages ferreux



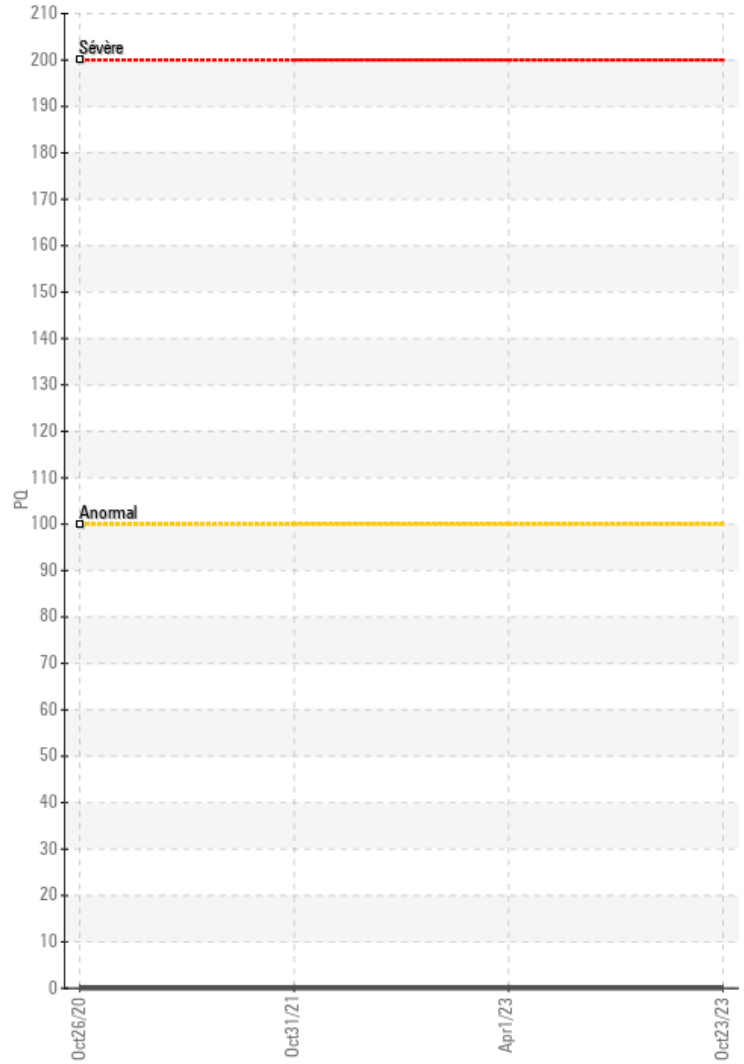
### Métaux non-ferreux



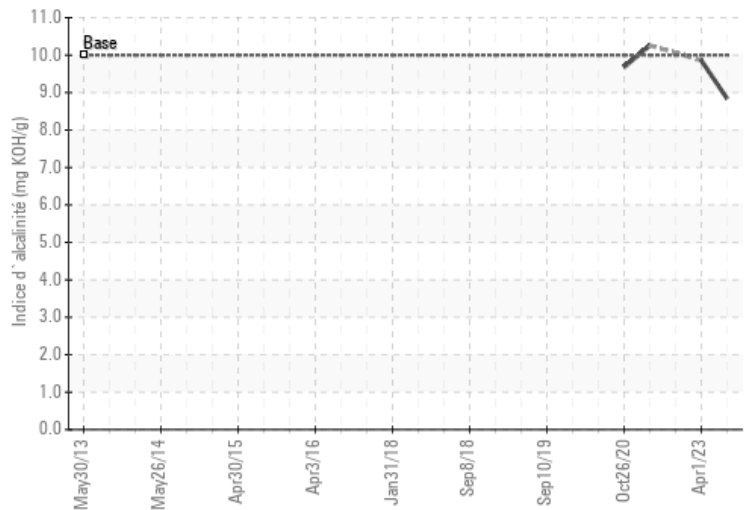
### Viscosité 100°C



### PQ



### Indice d'alcalinité



ISO 17025:2017  
Accredited  
Laboratory

**Laboratoire** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**N° d'échantillon** : WC0829226  
**N° de laboratoire** : 02593089  
**Numéro unique** : 5670168  
**Analyse** : MAR 3

**Reçu** : 01 Nov 2023  
**Diagnostiqué** : 03 Nov 2023  
**Diagnostiqueur** : Kevin Marson

**Canadian Coast Guard**  
 CCGS Amundsen, 101 Boul. Champlain  
 Quebec, QC  
 CA G1K 7Y7

Contact: Chief Engineer  
 amundsense@ccgs-ngcc.gc.ca  
 T: (418)953-8233

Pour discuter ce rapport, contacter le service à la clientèle au 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

La validez de los resultados y la interpretación se basan en la muestra y la información proporcionada.

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