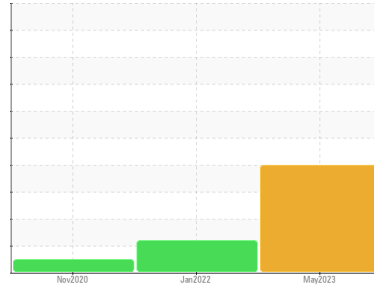




Area  
**EBI DE COSTA RICA**  
Machine Id  
**FREIGHTLINER 1415**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX AW 68 (110 g)**



**DIAGNOSIS**

**Recommendation**

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

**Wear**

All component wear rates are normal.

**Contamination**

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

**Fluid Condition**

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC0073936</b>	PC0058096	PC0039158
Sample Date	Client Info	<b>16 May 2023</b>	07 Jan 2022	24 Nov 2020
Machine Age	hrs	<b>8362</b>	5280	2330
Oil Age	hrs	<b>3508</b>	425	2330
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	N/A
Sample Status		<b>SEVERE</b>	SEVERE	NORMAL

**WEAR METALS**

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	<b>13</b>	3	11
Chromium	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >10	<b>1</b>	<1	1
Lead	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185(m) >75	<b>3</b>	<1	6
Tin	ppm	ASTM D5185(m) >10	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	<b>2</b>	<1	1
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 0	<b>6</b>	<1	4
Calcium	ppm	ASTM D5185(m) 50	<b>90</b>	44	130
Phosphorus	ppm	ASTM D5185(m) 330	<b>350</b>	340	347
Zinc	ppm	ASTM D5185(m) 430	<b>411</b>	410	454
Sulfur	ppm	ASTM D5185(m) 760	<b>951</b>	723	1018
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

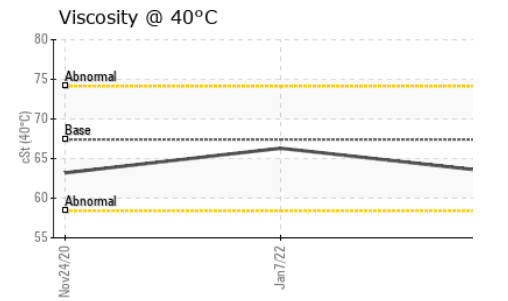
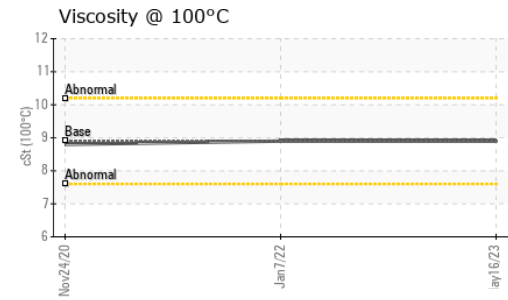
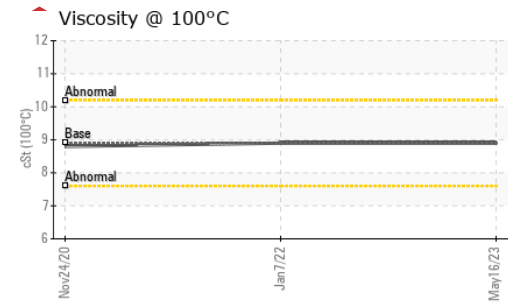
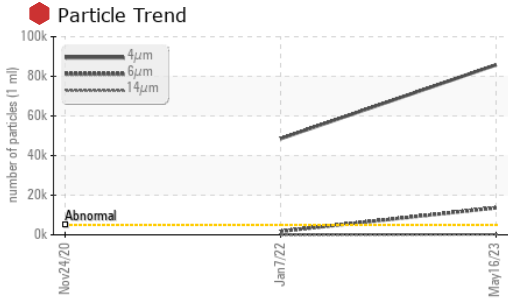
**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	<b>3</b>	1	3
Sodium	ppm	ASTM D5185(m)	<b>6</b>	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

**FLUID CLEANLINESS**

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>85811</b>	48523	---
Particles >6µm	ASTM D7647 >1300	<b>13641</b>	1761	---
Particles >14µm	ASTM D7647 >160	<b>259</b>	12	---
Particles >21µm	ASTM D7647 >40	<b>52</b>	3	---
Particles >38µm	ASTM D7647 >10	<b>1</b>	0	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>24/21/15</b>	23/18/11	---

# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D2729(m)	67.4	63.3	66.3
Visc @ 100°C	cSt	ASTM D2729(m)	8.9	8.9	8.8
Viscosity Index (VI)	Scale	ASTM D2270*	105	115	108

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **INDUSTRIAS del PETROLEO CANAD. SA**  
**Sample No.** : PC0073936 **Received** : 06 Jul 2023  
**Lab Number** : 02568278 **Diagnosed** : 07 Jul 2023  
**Unique Number** : 5605324 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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 CR  
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