



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L550 075036-1825

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	---	---
Sample Date		Client Info		20 Dec 2023	---	---
Machine Age	hrs	Client Info		545	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	3	---	---
Chromium	ppm	ASTM D5185(m)	>10	<1	---	---
Nickel	ppm	ASTM D5185(m)	>10	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>10	2	---	---
Lead	ppm	ASTM D5185(m)	>10	1	---	---
Copper	ppm	ASTM D5185(m)	>75	2	---	---
Tin	ppm	ASTM D5185(m)	>10	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

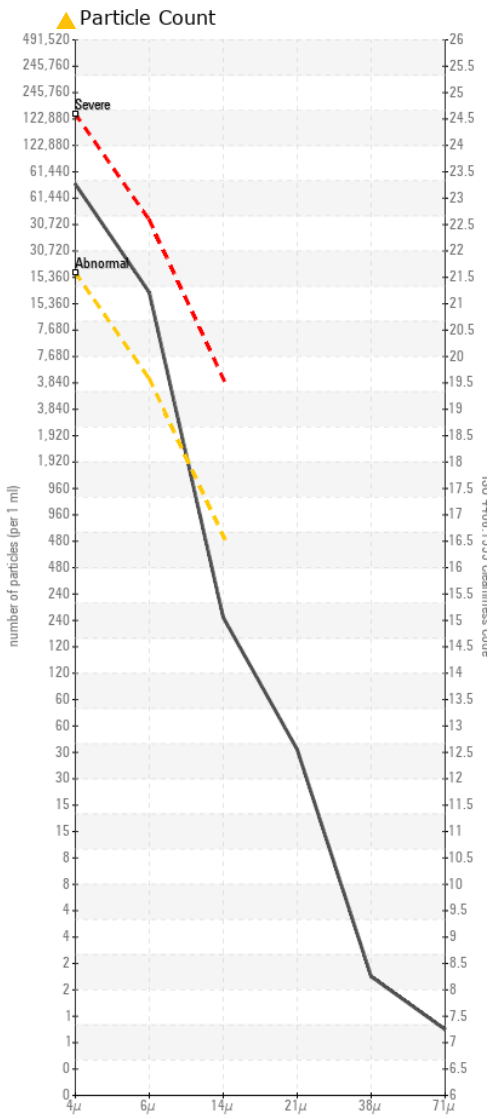
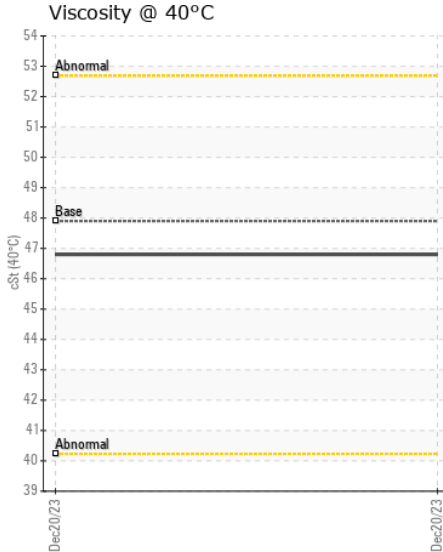
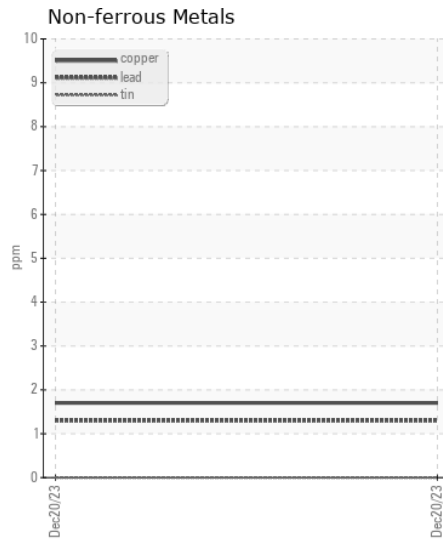
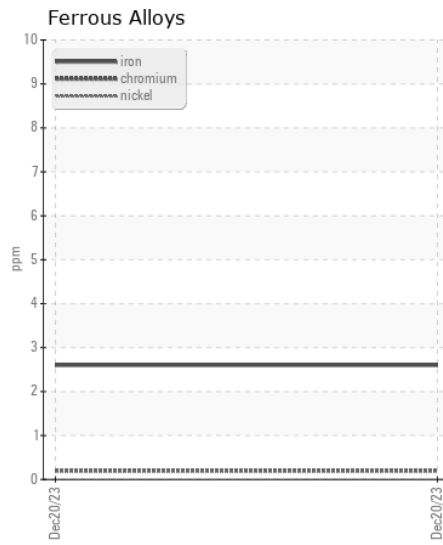
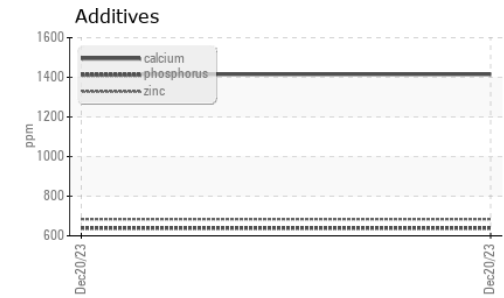
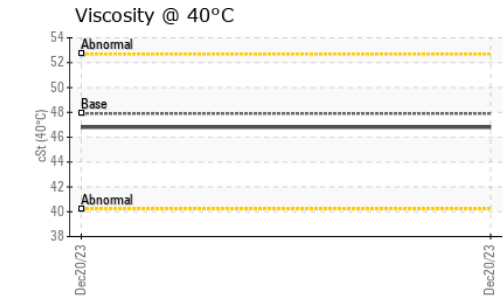
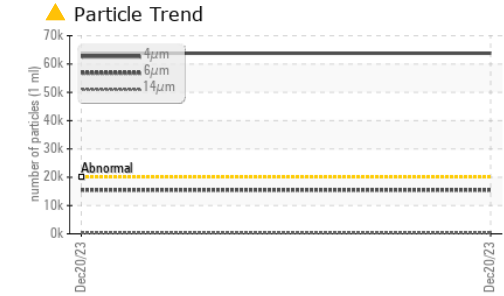
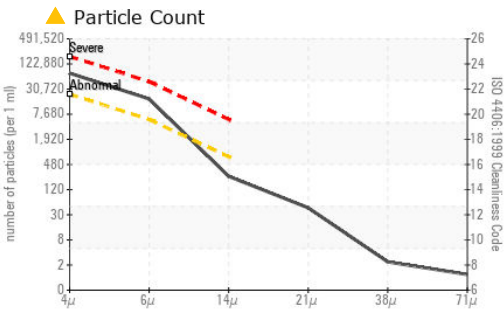
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>20	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>20000	▲ 63798	---	---
Particles >6µm		ASTM D7647	>5000	▲ 15480	---	---
Particles >14µm		ASTM D7647	>640	220	---	---
Particles >21µm		ASTM D7647	>160	39	---	---
Particles >38µm		ASTM D7647	>40	2	---	---
Particles >71µm		ASTM D7647	>10	1	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/21/15	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<1	---	---
Boron	ppm	ASTM D5185(m)	0	<1	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---	---
Manganese	ppm	ASTM D5185(m)	1	0	---	---
Magnesium	ppm	ASTM D5185(m)	0	5	---	---
Calcium	ppm	ASTM D5185(m)	100	1415	---	---
Phosphorus	ppm	ASTM D5185(m)	670	639	---	---
Zinc	ppm	ASTM D5185(m)	850	684	---	---
Sulfur	ppm	ASTM D5185(m)	1600	4277	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	46.8	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH **Received** : 29 Feb 2024
Lab Number : 02618981 **Tested** : 01 Mar 2024
Unique Number : 5736091 **Diagnosed** : 01 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PrtCount)

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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.