



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R914 056971-1511

Component
Hydraulic System

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

RECOMMENDATION

We recommend you service the filters on this component. 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		LH0284025	---	---
Sample Date		Client Info		14 Feb 2024	---	---
Machine Age	hrs	Client Info		480	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	6	---	---
Chromium	ppm	ASTM D5185(m)	>15	<1	---	---
Nickel	ppm	ASTM D5185(m)	>5	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>8	1	---	---
Lead	ppm	ASTM D5185(m)	>5	<1	---	---
Copper	ppm	ASTM D5185(m)	>15	5	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

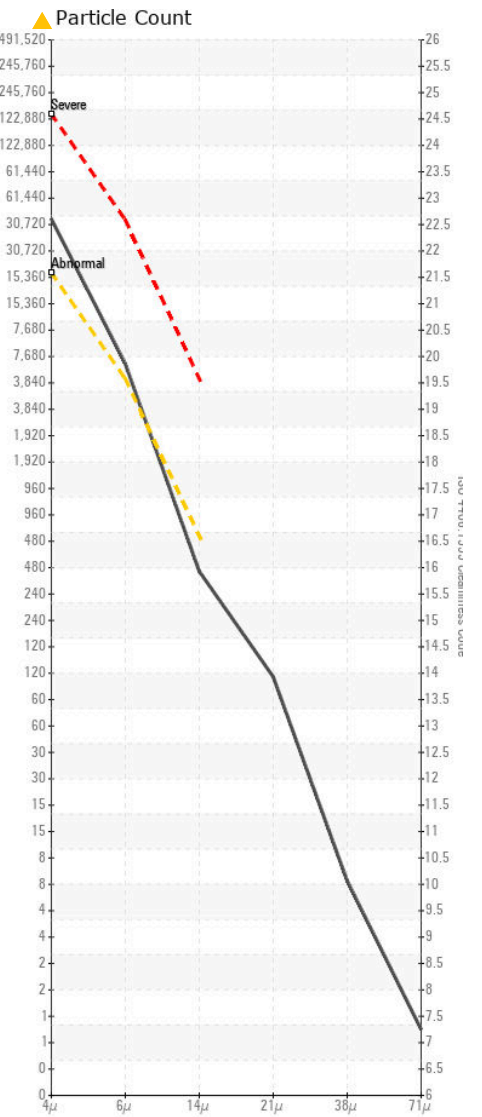
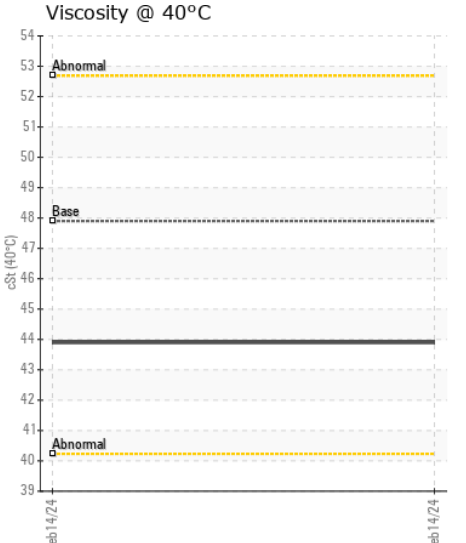
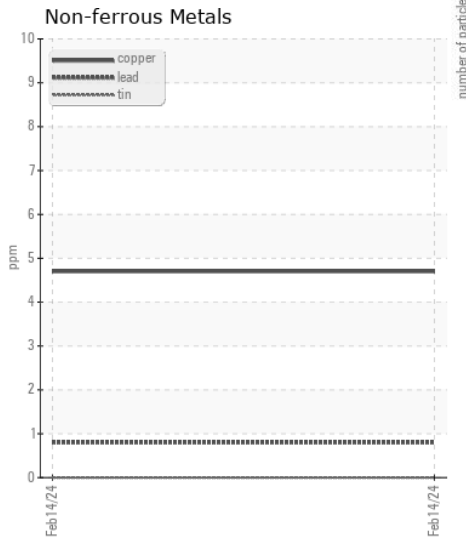
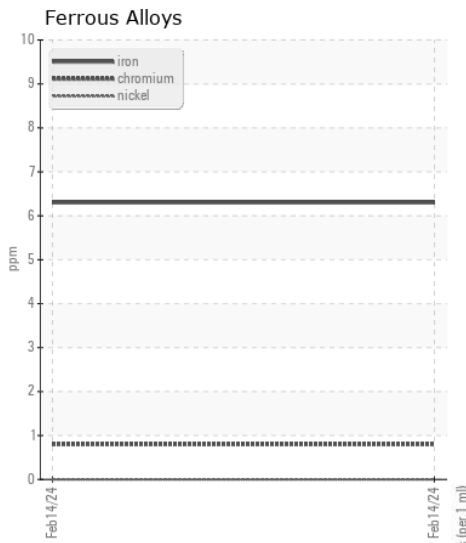
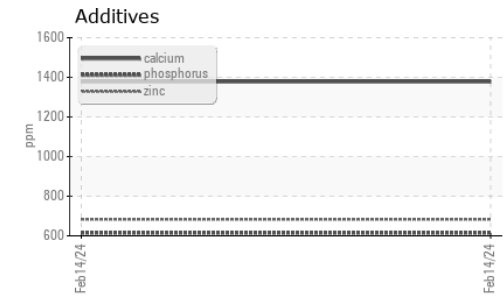
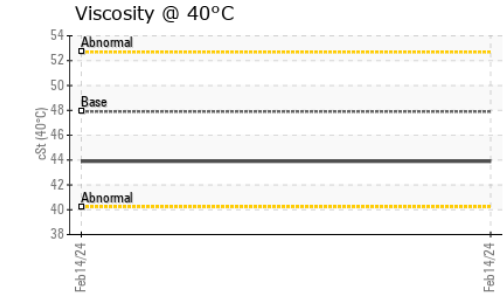
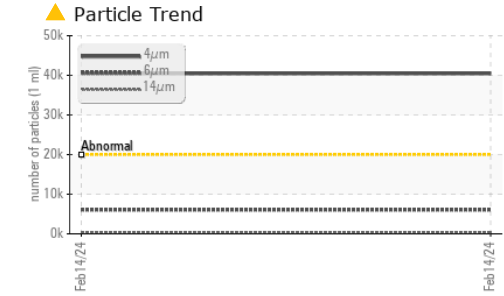
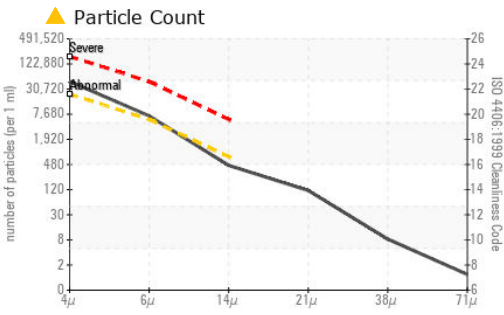
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>20000	▲ 40446	---	---
Particles >6µm		ASTM D7647	>5000	▲ 6083	---	---
Particles >14µm		ASTM D7647	>640	402	---	---
Particles >21µm		ASTM D7647	>160	101	---	---
Particles >38µm		ASTM D7647	>40	7	---	---
Particles >71µm		ASTM D7647	>10	1	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/20/16	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
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)		2	---	---
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	4	---	---
Calcium	ppm	ASTM D5185(m)	100	1378	---	---
Phosphorus	ppm	ASTM D5185(m)	670	615	---	---
Zinc	ppm	ASTM D5185(m)	850	683	---	---
Sulfur	ppm	ASTM D5185(m)	1600	3701	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.9	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0284025 **Received** : 16 Feb 2024
Lab Number : 02616276 **Tested** : 20 Feb 2024
Unique Number : 5733386 **Diagnosed** : 20 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PrtCount)

WEKA HOLDINGS LTD
 2754 WOODLAND DRIVE
 VANCOUVER, BC
 CA V5N 3P8
 Contact: Cam Turtle

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.

T:
F: