



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH22M 158368-1250

Component
Hydraulic System

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

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0284686	LH0284719	---
Sample Date		Client Info		25 Jun 2024	10 Apr 2024	---
Machine Age	hrs	Client Info		1070	500	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>60	59	39	---
Chromium	ppm	ASTM D5185(m)	>40	1	<1	---
Nickel	ppm	ASTM D5185(m)	>10	<1	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	---
Lead	ppm	ASTM D5185(m)	>5	0	0	---
Copper	ppm	ASTM D5185(m)	>15	5	3	---
Tin	ppm	ASTM D5185(m)	>5	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

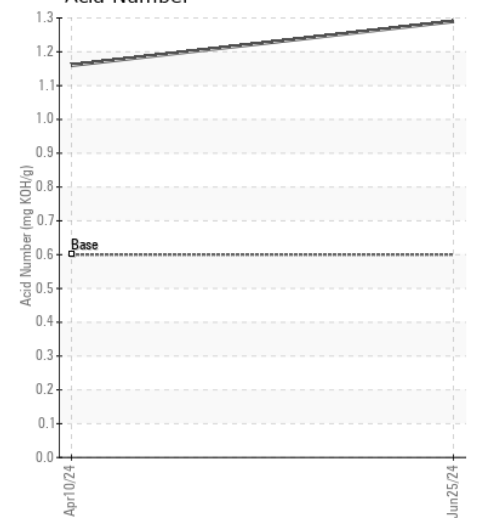
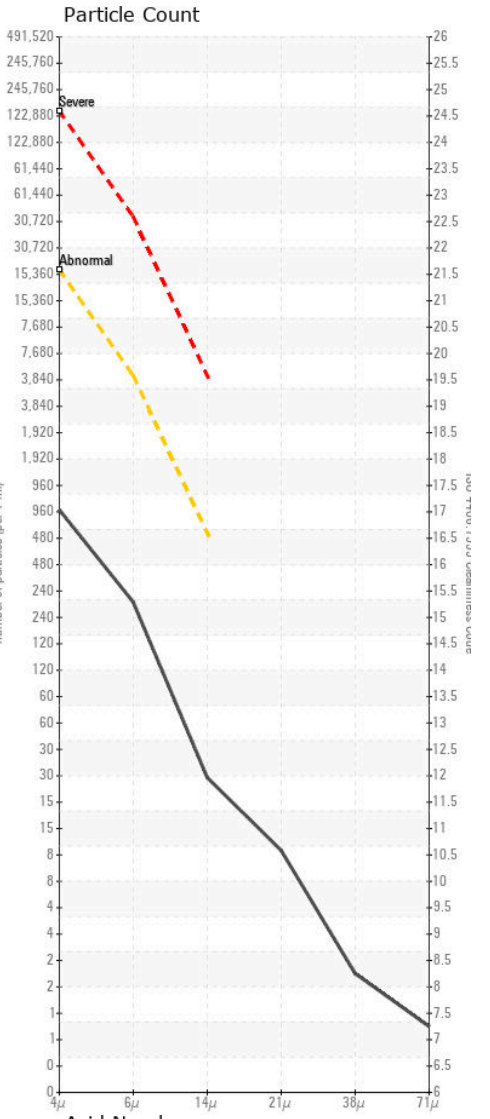
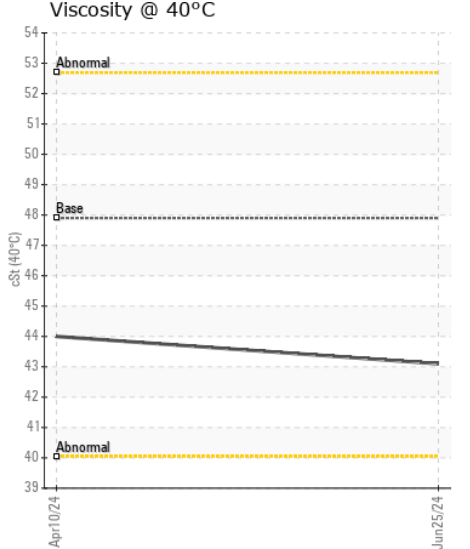
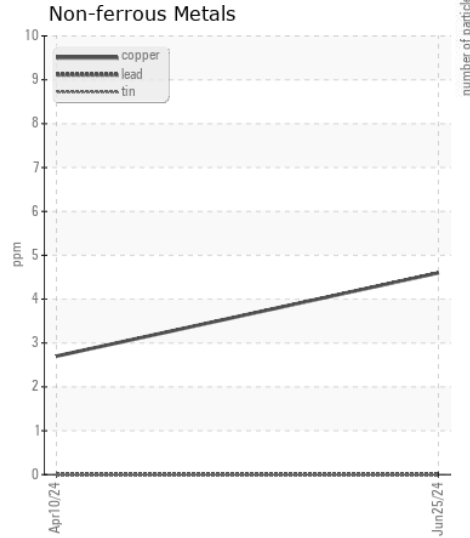
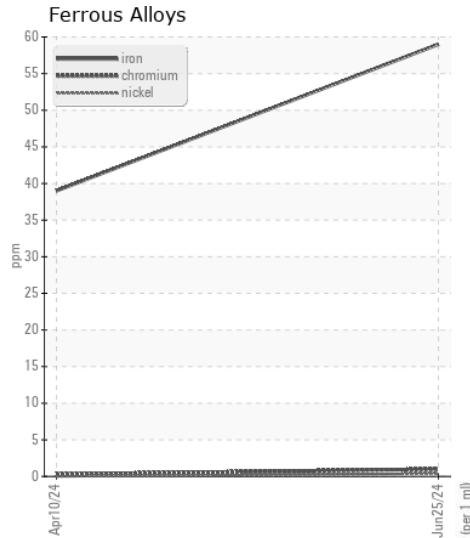
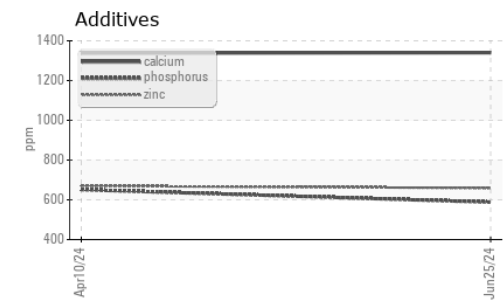
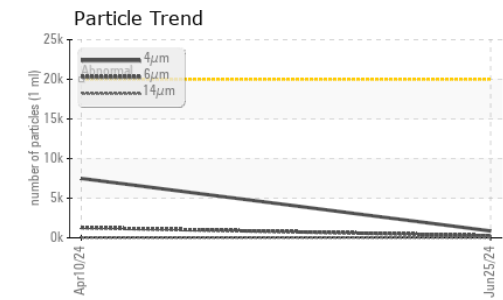
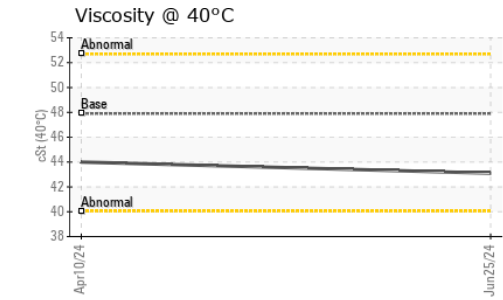
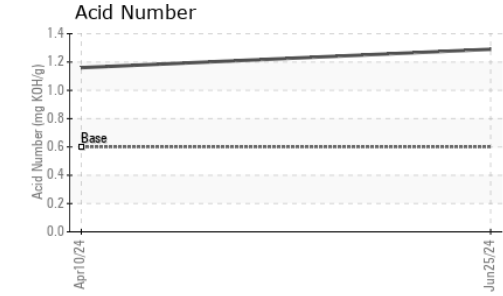
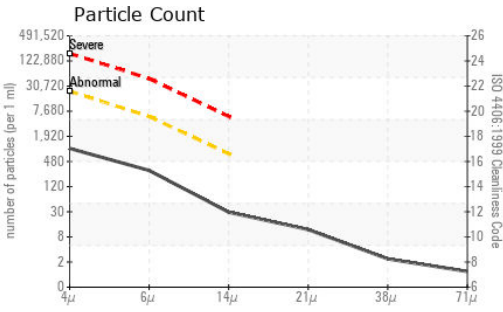
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	5	3	---
Potassium	ppm	ASTM D5185(m)	>20	1	1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	865	7496	---
Particles >6µm		ASTM D7647	>5000	258	1285	---
Particles >14µm		ASTM D7647	>640	26	18	---
Particles >21µm		ASTM D7647	>160	10	7	---
Particles >38µm		ASTM D7647	>40	2	2	---
Particles >71µm		ASTM D7647	>10	1	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/15/12	20/17/11	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	VLITE	---
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	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		2	2	---
Boron	ppm	ASTM D5185(m)	0	<1	<1	---
Barium	ppm	ASTM D5185(m)	0	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	0	---
Manganese	ppm	ASTM D5185(m)	1	1	<1	---
Magnesium	ppm	ASTM D5185(m)	0	7	7	---
Calcium	ppm	ASTM D5185(m)	100	1340	1338	---
Phosphorus	ppm	ASTM D5185(m)	670	588	651	---
Zinc	ppm	ASTM D5185(m)	850	659	670	---
Sulfur	ppm	ASTM D5185(m)	1600	4068	4049	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	1.29	1.16	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.1	44.0	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0284686
Lab Number : 02644613
Unique Number : 5802152
Test Package : MOBCE

RECEIVED : 28 Jun 2024
TESTED : 02 Jul 2024
DIAGNOSED : 02 Jul 2024 - Kevin Marson
BELLEMARE RECYCLAGE - SABLE DES FORGES INC
 8750 BOUL INDUSTRIEL
 TROIS-RIVIERES, QC
 CA G9A 5E1
 Contact: Sacha Bellemare
 sachabellemare@groupebellemare.com
 T: (819)296-3767
 F: (819)296-1116

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.