



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE

NORMAL

NORMAL



Machine Id
LIEBHERR LH26M 124532-1252

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (200 LTR)

RECOMMENDATION

We recommend an early resample to monitor this condition. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0226604	LH0181005	LH0240688
Sample Date		Client Info		09 Jun 2023	10 Jan 2023	06 Sep 2022
Machine Age	hrs	Client Info		3671	3035	2544
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				SEVERE	ABNORMAL	ABNORMAL

WEAR

Iron ppm levels are severe. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184*		11	8	1
Iron	ppm	ASTM D5185(m)	>60	▲ 123	▲ 106	▲ 73
Chromium	ppm	ASTM D5185(m)	>40	1	1	<1
Nickel	ppm	ASTM D5185(m)	>10	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	1	<1	<1
Lead	ppm	ASTM D5185(m)	>5	2	2	2
Copper	ppm	ASTM D5185(m)	>15	6	6	6
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	<1	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

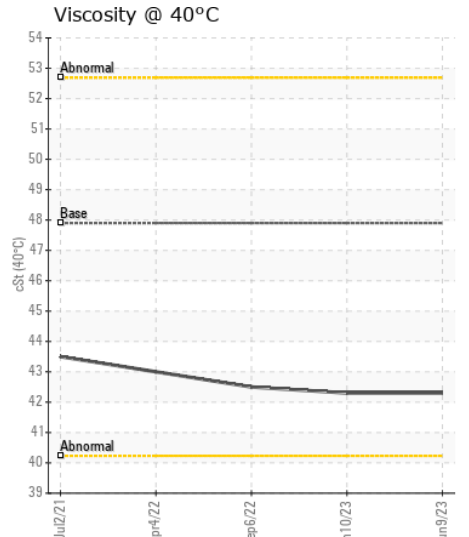
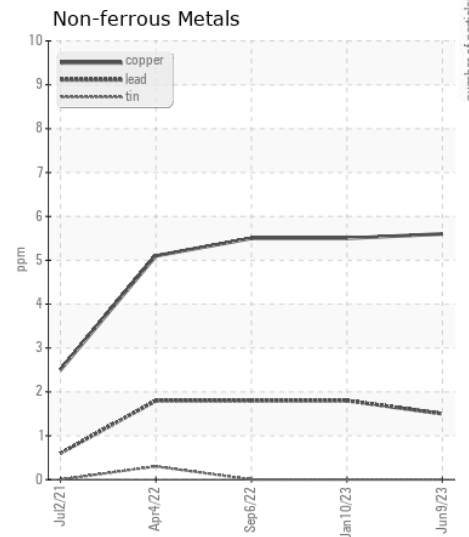
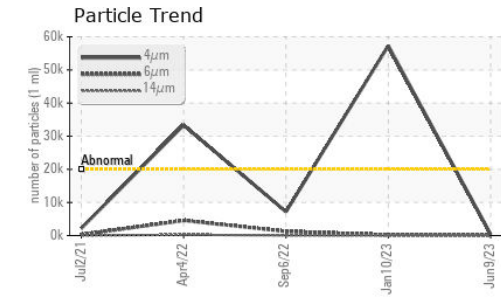
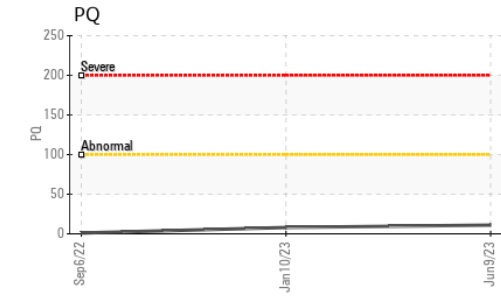
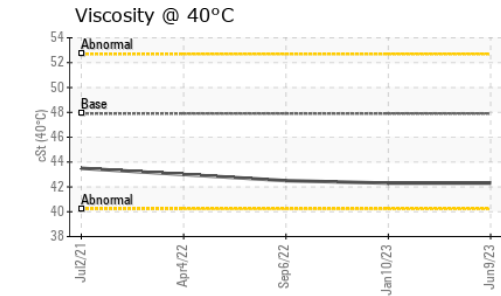
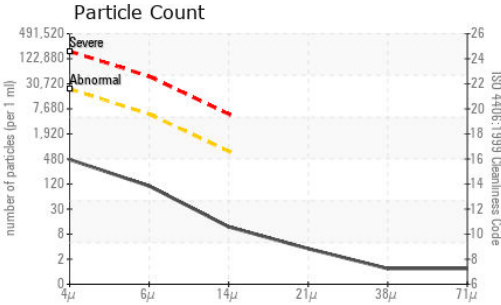
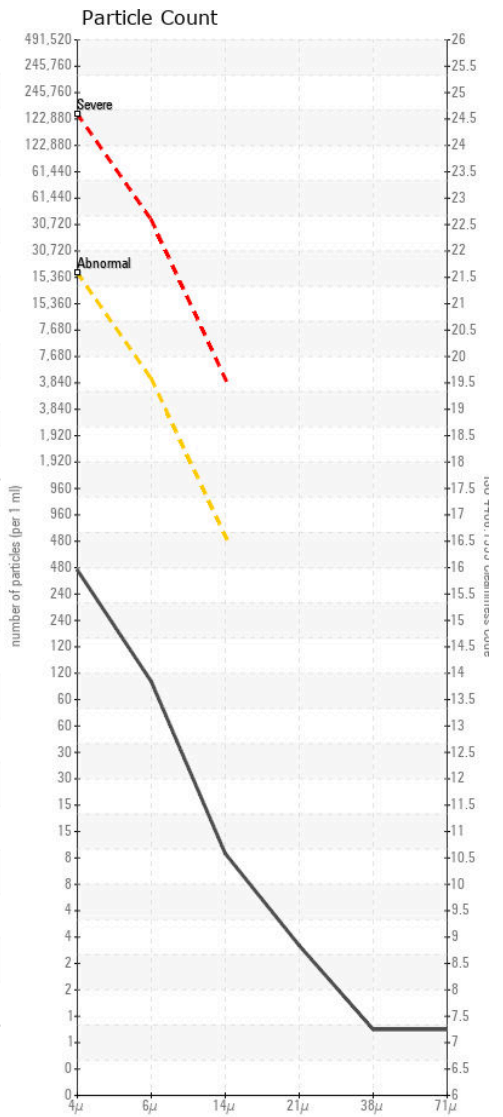
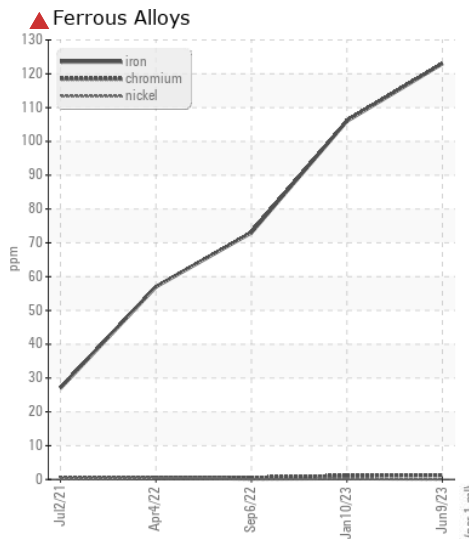
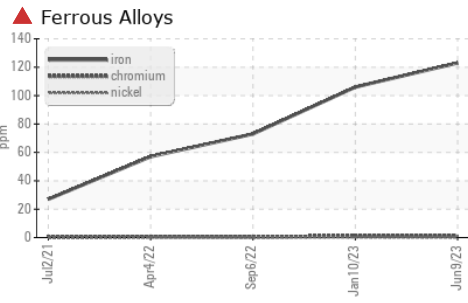
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	409	▲ 57305	7196
Particles >6µm		ASTM D7647	>5000	95	188	1263
Particles >14µm		ASTM D7647	>640	10	8	41
Particles >21µm		ASTM D7647	>160	3	3	8
Particles >38µm		ASTM D7647	>40	1	0	0
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	16/14/10	▲ 23/15/10	20/17/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	0	<1	<1	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	2	2	1
Magnesium	ppm	ASTM D5185(m)	0	3	4	4
Calcium	ppm	ASTM D5185(m)	100	622	792	872
Phosphorus	ppm	ASTM D5185(m)	670	528	582	600
Zinc	ppm	ASTM D5185(m)	850	622	650	658
Sulfur	ppm	ASTM D5185(m)	1600	2446	2547	2743
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	42.3	42.3	42.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0226604
Lab Number : 02579456
Unique Number : 5632516
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)
Received : 30 Aug 2023
Tested : 31 Aug 2023
Diagnosed : 31 Aug 2023 - Kevin Marson

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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.