



LIEBHERR

OIL ANALYSIS REPORT



Machine Id
LIEBHERR LH26M 124532-1252

Component
Hydraulic System

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

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0288068	LH0242080	LH0181018
Sample Date		Client Info		22 Apr 2024	08 Jan 2024	08 Sep 2023
Machine Age	hrs	Client Info		5135	4614	4078
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				SEVERE	SEVERE	SEVERE

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*		7	20	16
Iron	ppm	ASTM D5185(m)	>60	▲ 122	▲ 161	▲ 158
Chromium	ppm	ASTM D5185(m)	>40	2	2	2
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	2	1
Lead	ppm	ASTM D5185(m)	>5	<1	2	2
Copper	ppm	ASTM D5185(m)	>15	6	7	6
Tin	ppm	ASTM D5185(m)	>5	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	<1
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. NOTE: An increase in the particle count is noted.

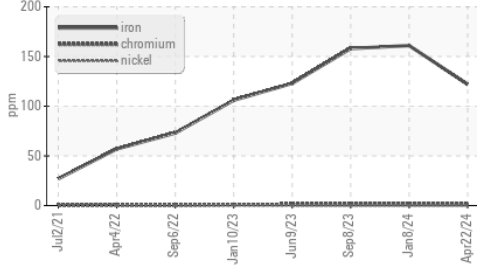
Silicon	ppm	ASTM D5185(m)	>15	3	4	3
Potassium	ppm	ASTM D5185(m)	>20	7	1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	9956	584	904
Particles >6µm		ASTM D7647	>5000	2348	94	47
Particles >14µm		ASTM D7647	>640	84	14	5
Particles >21µm		ASTM D7647	>160	13	5	2
Particles >38µm		ASTM D7647	>40	2	1	1
Particles >71µm		ASTM D7647	>10	1	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/18/14	16/14/11	17/13/10
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	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	.2%	NEG

FLUID CONDITION

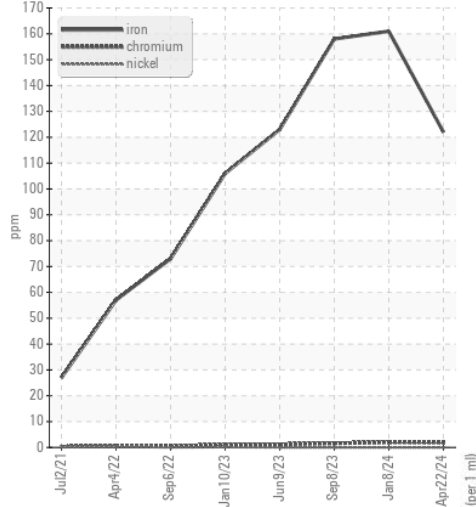
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

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	2
Magnesium	ppm	ASTM D5185(m)	0	2	3	3
Calcium	ppm	ASTM D5185(m)	100	367	536	592
Phosphorus	ppm	ASTM D5185(m)	670	436	469	521
Zinc	ppm	ASTM D5185(m)	850	538	580	613
Sulfur	ppm	ASTM D5185(m)	1600	1529	2030	2104
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.1	42.2	42.3

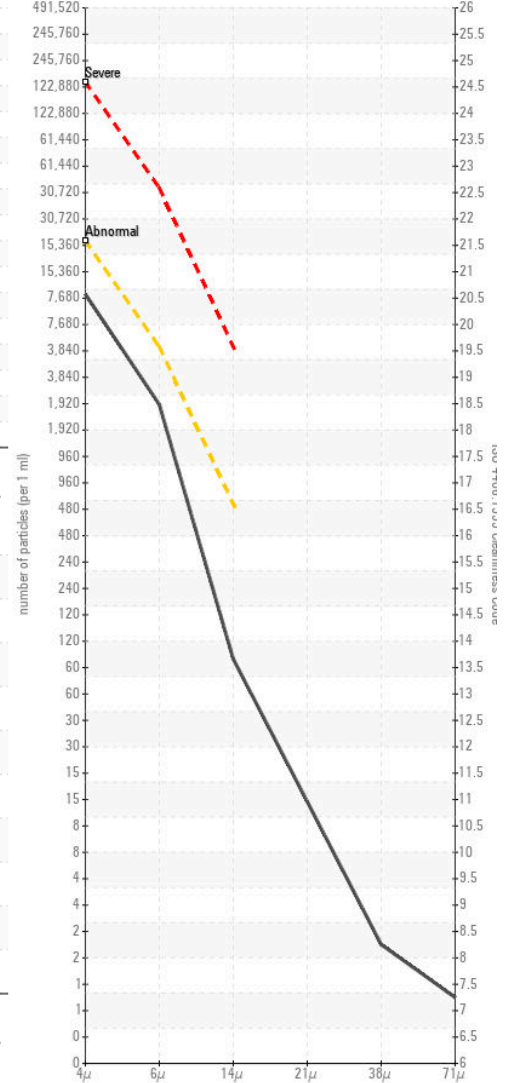
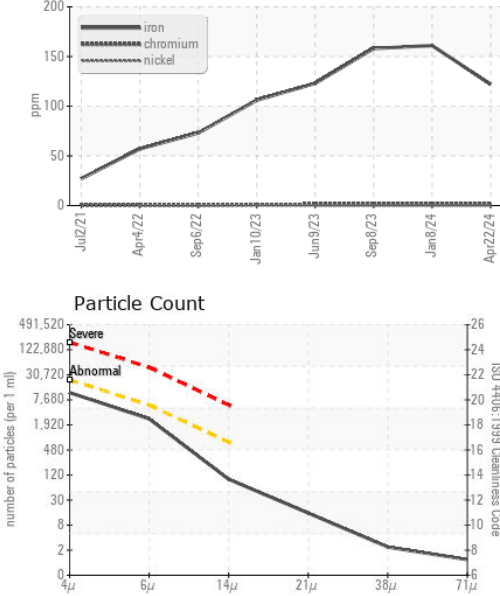
▲ Ferrous Alloys



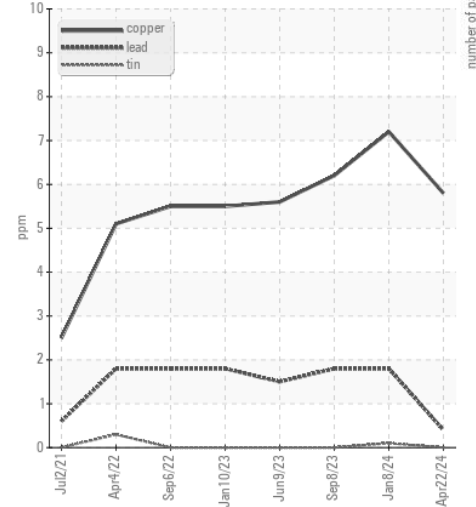
▲ Ferrous Alloys



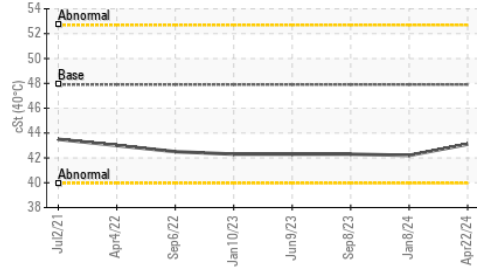
Particle Count



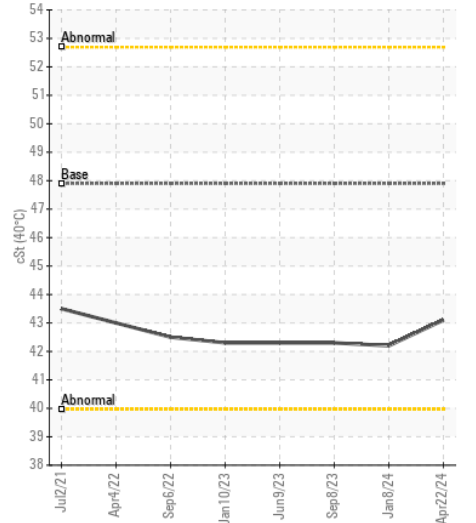
Non-ferrous Metals



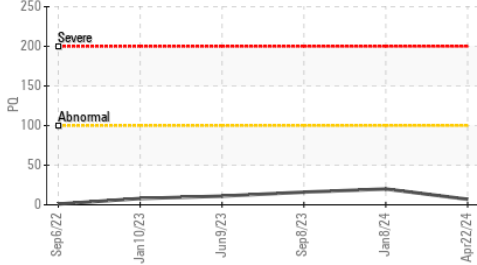
Viscosity @ 40°C



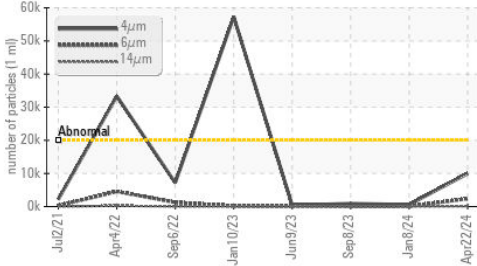
Viscosity @ 40°C



PQ



Particle Trend



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0288068 **Received** : 02 May 2024
Lab Number : 02632800 **Tested** : 03 May 2024
Unique Number : 5773953 **Diagnosed** : 03 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

Amix Recycling
 11698 140 Street
 Surrey, BC
 CA V3R 2V4
 Contact: Kenji Wong
 kwong@amixgroup.ca
 T:
 F: (250)802-1002

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.