



LIEBHERR

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH26M 124532-1252
Component
Hydraulic System
Fluid
PETRO CANADA 10W40 (200 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. 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		LH0242080	LH0181018	LH0226604
Sample Date		Client Info		08 Jan 2024	08 Sep 2023	09 Jun 2023
Machine Age	hrs	Client Info		4614	4078	3671
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		N/A	Changed	N/A
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*		20	16	11
Iron	ppm	ASTM D5185(m)	>60	161	158	123
Chromium	ppm	ASTM D5185(m)	>40	2	2	1
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	2	1	1
Lead	ppm	ASTM D5185(m)	>5	2	2	2
Copper	ppm	ASTM D5185(m)	>15	7	6	6
Tin	ppm	ASTM D5185(m)	>5	<1	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

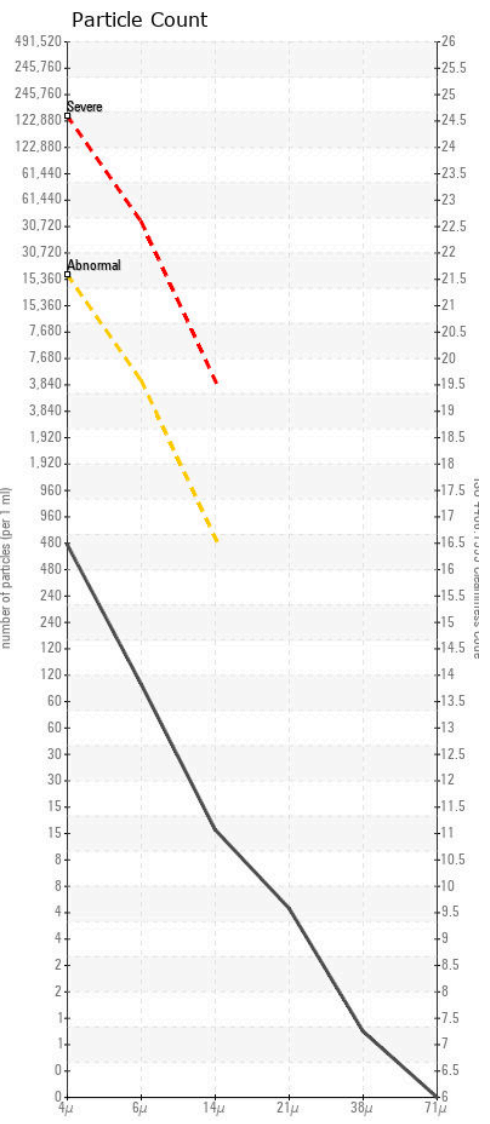
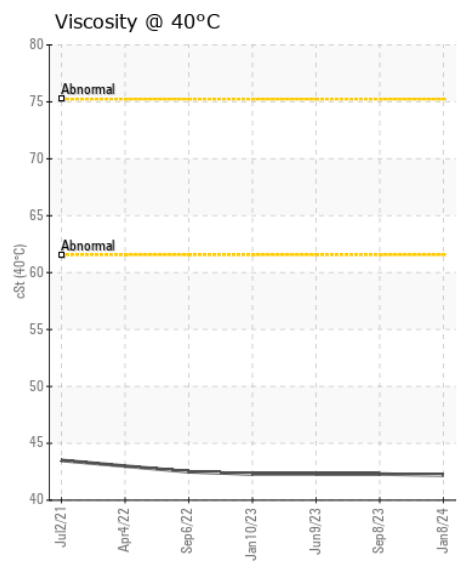
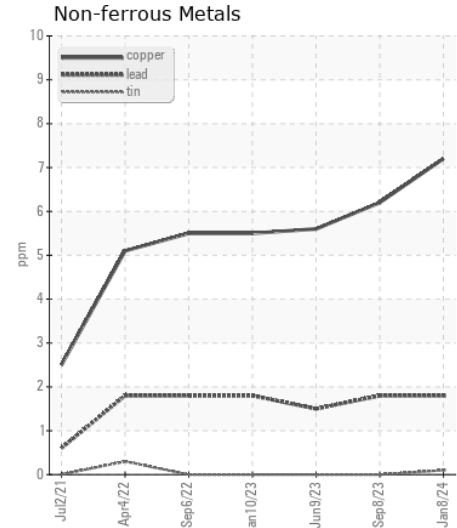
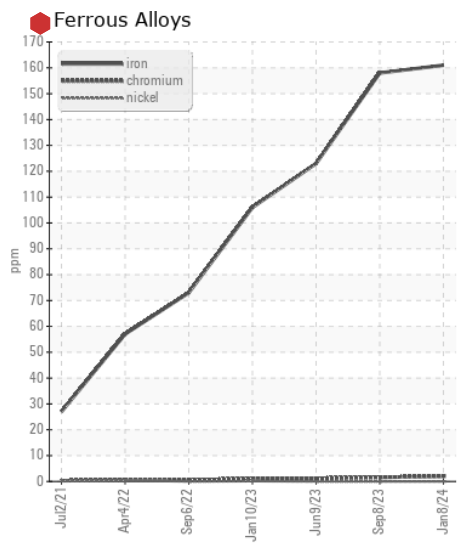
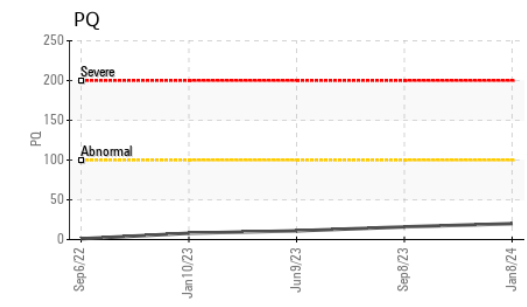
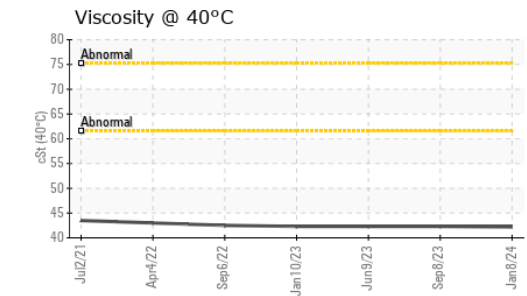
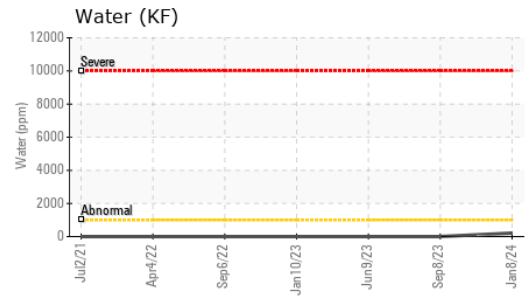
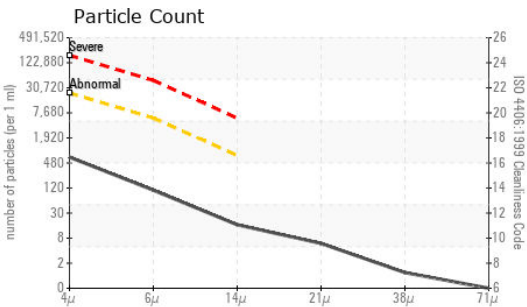
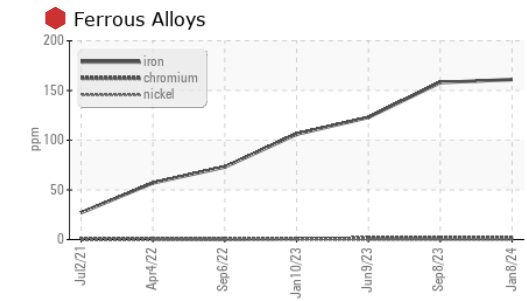
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	4	3	3
Potassium	ppm	ASTM D5185(m)	>20	1	1	<1
Water	%	ASTM D6304*	>0.1	0.020	---	---
ppm Water	ppm	ASTM D6304*	>1000	210	---	---
Particles >4µm		ASTM D7647	>20000	584	904	409
Particles >6µm		ASTM D7647	>5000	94	47	95
Particles >14µm		ASTM D7647	>640	14	5	10
Particles >21µm		ASTM D7647	>160	5	2	3
Particles >38µm		ASTM D7647	>40	1	1	1
Particles >71µm		ASTM D7647	>10	0	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	16/14/11	17/13/10	16/14/10
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	.2%	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 10W range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>20	2	2	2
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		2	2	2
Magnesium	ppm	ASTM D5185(m)		3	3	3
Calcium	ppm	ASTM D5185(m)		536	592	622
Phosphorus	ppm	ASTM D5185(m)		469	521	528
Zinc	ppm	ASTM D5185(m)		580	613	622
Sulfur	ppm	ASTM D5185(m)		2030	2104	2446
Visc @ 40°C	cSt	ASTM D7279(m)		42.2	42.3	42.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0242080 **Received** : 10 Jan 2024
Lab Number : 02607881 **Diagnosed** : 12 Jan 2024
Unique Number : 5708967 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KF, PQ, PrtCount)

Amix Recycling
 11698 140 Street
 Surrey, BC
 CA V3R 2V4
 Contact: Service Manager

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: (250)802-1002