MOB

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(351146)
Machine Id
LIEBHERR A918 131283-1508
Component
Hydraulic System
Fluid
PETRO CANADA 10W30 (150 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

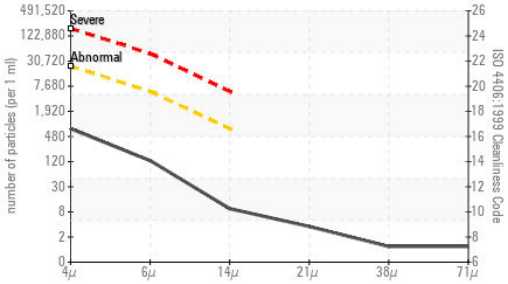
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

FLUID CONDITION

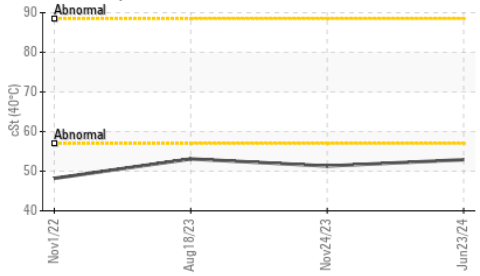
Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0286693	LH0277526	LH0274420
Sample Date		Client Info		23 Jun 2024	24 Nov 2023	18 Aug 2023
Machine Age	hrs	Client Info		3983	3974	2990
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	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>60	7	8	6
Chromium	ppm	ASTM D5185(m)	>40	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<1	<1	0
Titanium	ppm	ASTM D5185(m)		31	25	31
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	2	2	2
Lead	ppm	ASTM D5185(m)	>5	<1	2	<1
Copper	ppm	ASTM D5185(m)	>15	4	8	4
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		<1	0	<1
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>15	4	4	5
Potassium	ppm	ASTM D5185(m)	>20	2	1	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	648	3580	15349
Particles >6µm		ASTM D7647	>5000	112	695	4866
Particles >14µm		ASTM D7647	>640	8	34	231
Particles >21µm		ASTM D7647	>160	3	6	49
Particles >38µm		ASTM D7647	>40	1	2	4
Particles >71µm		ASTM D7647	>10	1	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/14/10	19/17/12	21/19/15
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
Sodium	ppm	ASTM D5185(m)		4	4	4
Boron	ppm	ASTM D5185(m)		52	44	53
Barium	ppm	ASTM D5185(m)		<1	<1	0
Molybdenum	ppm	ASTM D5185(m)		19	17	21
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)		420	363	440
Calcium	ppm	ASTM D5185(m)		1415	1332	1412
Phosphorus	ppm	ASTM D5185(m)		826	810	917
Zinc	ppm	ASTM D5185(m)		969	914	983
Sulfur	ppm	ASTM D5185(m)		3280	3284	3421
Visc @ 40°C	cSt	ASTM D7279(m)		52.9	51.3	53.1

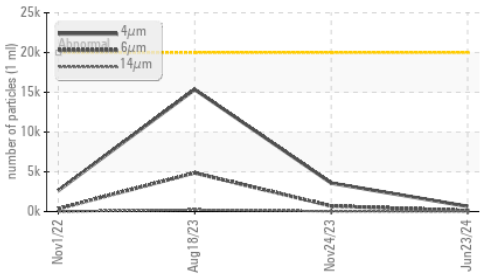
Particle Count



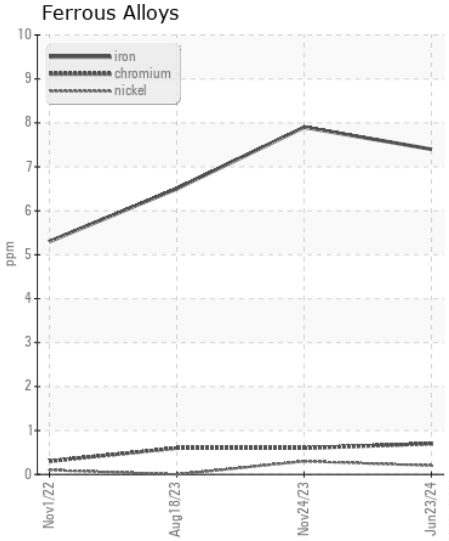
Viscosity @ 40°C



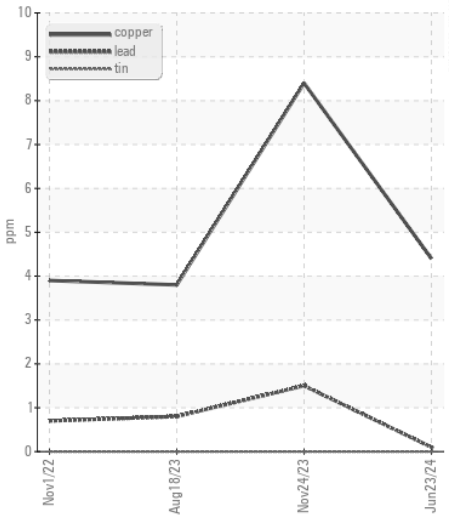
Particle Trend



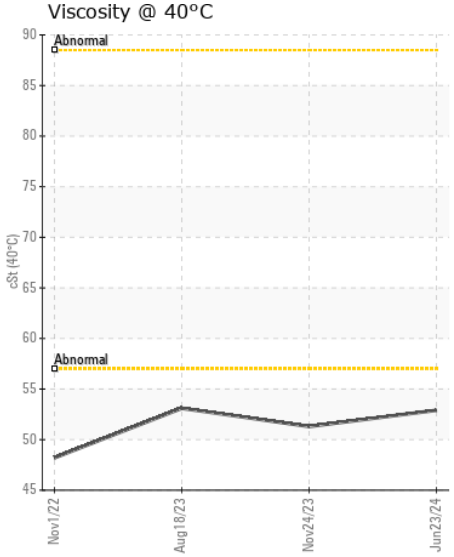
Ferrous Alloys



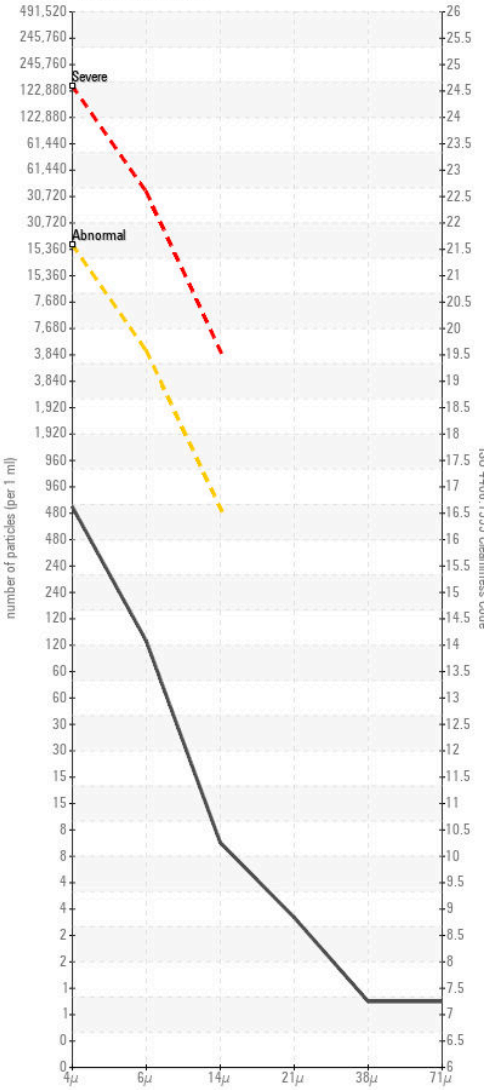
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9			**THOMAS CAVANAGH CONSTRUCTION LTD**
Sample No.	: LH0286693	**Received**	: 26 Jun 2024	RR # 2, 9094 CAVANAGH ROAD
Lab Number	: 02644183	**Tested**	: 27 Jun 2024	ASHTON, ON
Unique Number	: 5801722	**Diagnosed**	: 27 Jun 2024 - Kevin Marson	CA K0A 1B0
Test Package	: MOB 1 (Additional Tests: PrtCount)			Contact: Keith

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.

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