MOB

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
LIEBHERR PR776 24302
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

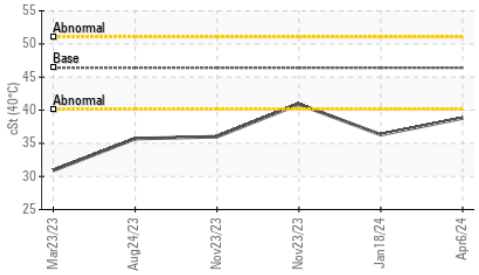
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

FLUID CONDITION

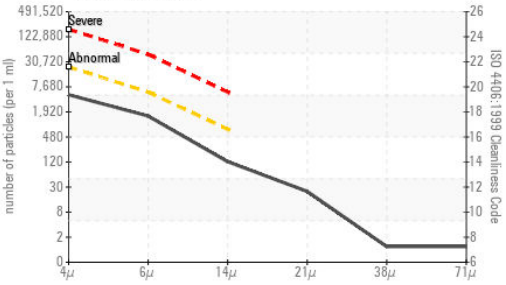
Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**LH0265129**	LH0265121	LH0265101
Sample Date		Client Info		**06 Apr 2024**	18 Jan 2024	23 Nov 2023
Machine Age	hrs	Client Info		**9464**	6158	0
Oil Age	hrs	Client Info		**0**	0	0
Filter Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	Not Changd
Filter Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185(m)	>20	**11**	11	▲ 63
Chromium	ppm	ASTM D5185(m)	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	**<1**	<1	2
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	**2**	2	6
Lead	ppm	ASTM D5185(m)	>10	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>75	**7**	7	<1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>20	**6**	5	▲ 26
Potassium	ppm	ASTM D5185(m)	>20	**5**	1	<1
Water		WC Method	>0.1	**NEG**	NEG	NEG
Particles >4µm		ASTM D7647	>20000	**4328**	943	▲ 92149
Particles >6µm		ASTM D7647	>5000	**1339**	365	▲ 21085
Particles >14µm		ASTM D7647	>640	**108**	42	174
Particles >21µm		ASTM D7647	>160	**21**	11	16
Particles >38µm		ASTM D7647	>40	**1**	1	1
Particles >71µm		ASTM D7647	>10	**1**	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**19/18/14**	17/16/13	▲ 24/22/15
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	VLITE
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)		**7**	6	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)	0	**<1**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**3**	4	3
Calcium	ppm	ASTM D5185(m)	50	**103**	133	72
Phosphorus	ppm	ASTM D5185(m)	330	**304**	290	408
Zinc	ppm	ASTM D5185(m)	430	**346**	317	553
Sulfur	ppm	ASTM D5185(m)	760	**1013**	1074	1418
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	▲ **38.8**	▲ 36.3	40.9

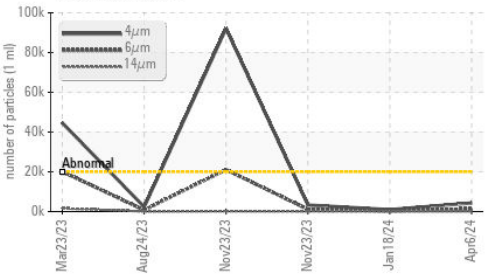
Viscosity @ 40°C



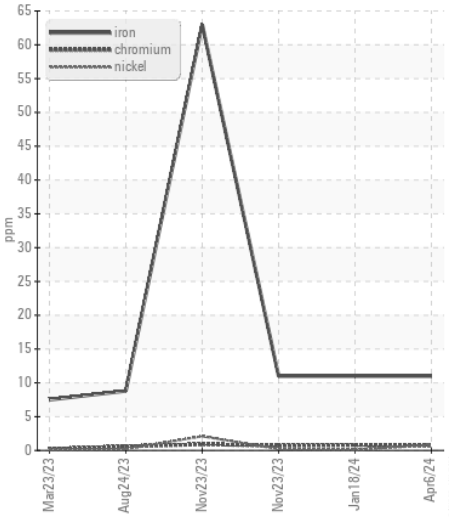
Particle Count



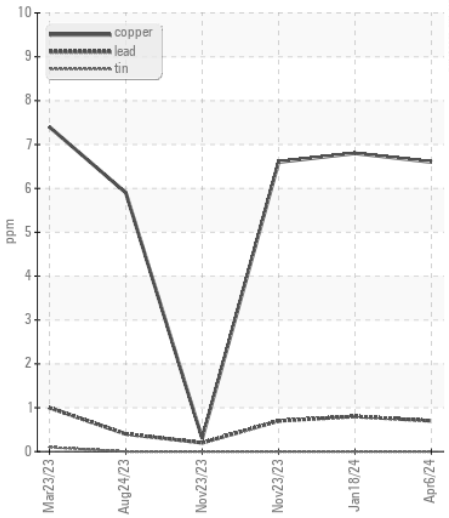
Particle Trend



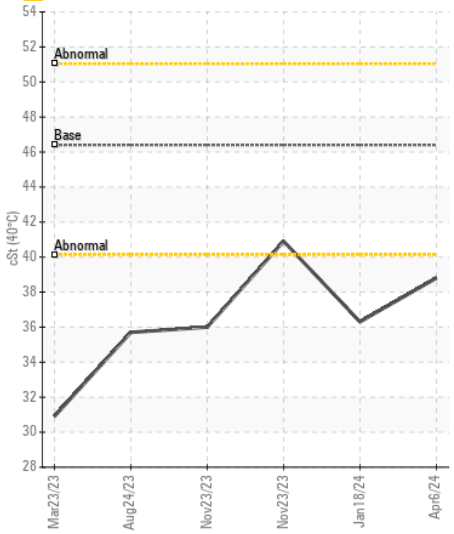
Ferrous Alloys



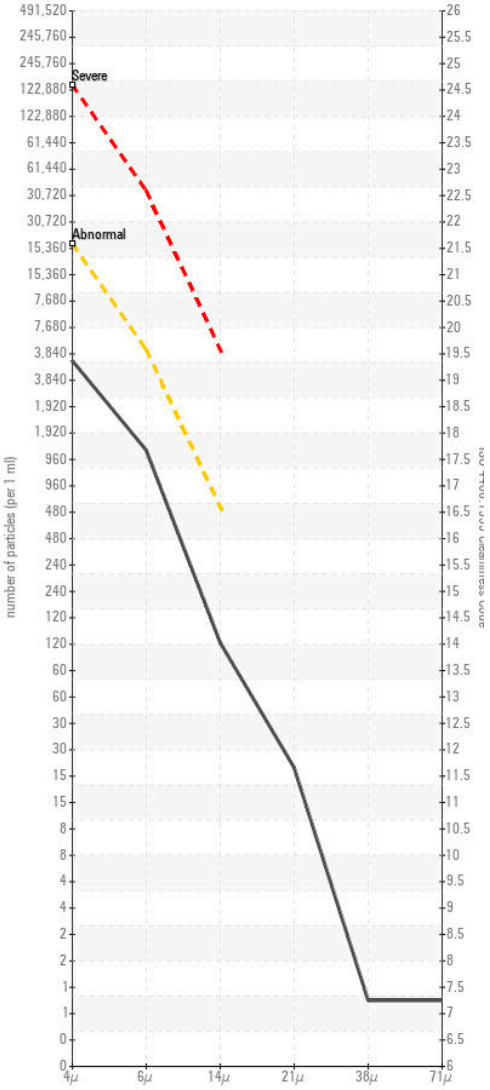
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: LH0265129	**Received**	: 17 Jun 2024
Lab Number	: 02642362	**Tested**	: 18 Jun 2024
Unique Number	: 5799901	**Diagnosed**	: 18 Jun 2024 - Kevin Marson
Test Package	: MOB 1 (Additional Tests: PrtCount)		

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.

ARGONAUT GOLD
DUBREUILVILLE MINE
DUBREUILVILLE, ON
CA
Contact: Service Manager

T:
F: