MOB I LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
RONI
Machine Id
136
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

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

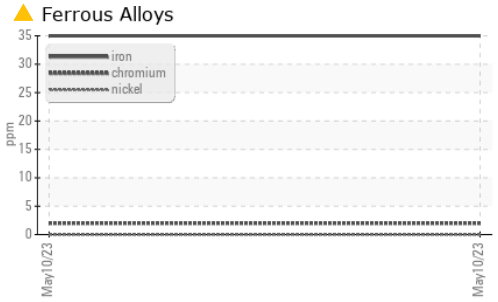
CONTAMINATION

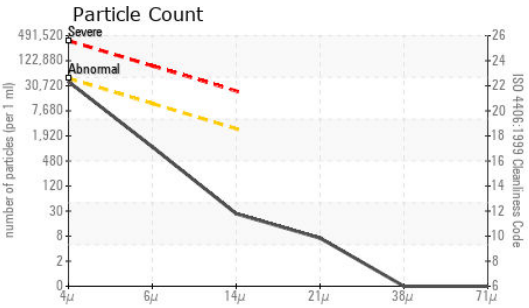
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

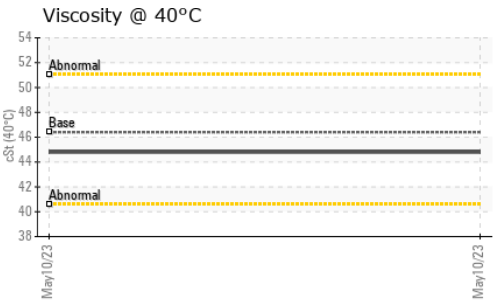
FLUID CONDITION

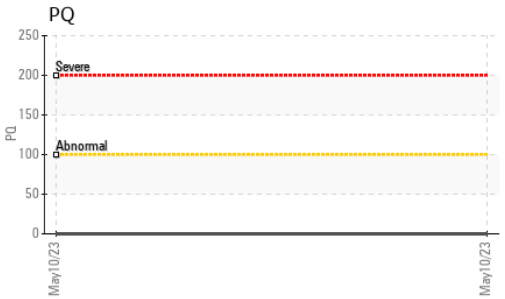
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

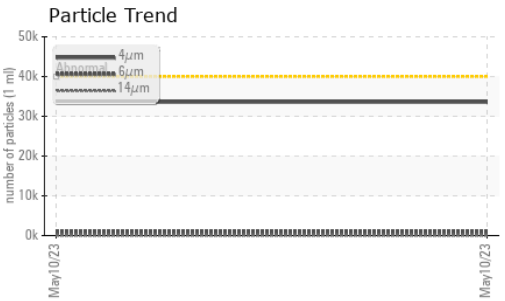
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0261691	---	---
Sample Date		Client Info		10 May 2023	---	---
Machine Age	hrs	Client Info		2600	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>25	▲ 35	---	---
Chromium	ppm	ASTM D5185(m)	>10	2	---	---
Nickel	ppm	ASTM D5185(m)	>10	0	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	5	---	---
Lead	ppm	ASTM D5185(m)	>20	<1	---	---
Copper	ppm	ASTM D5185(m)	>150	12	---	---
Tin	ppm	ASTM D5185(m)	>10	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>50	18	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>40000	33597	---	---
Particles >6µm		ASTM D7647	>10000	921	---	---
Particles >14µm		ASTM D7647	>2500	23	---	---
Particles >21µm		ASTM D7647	>640	6	---	---
Particles >38µm		ASTM D7647	>160	0	---	---
Particles >71µm		ASTM D7647	>40	0	---	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	22/17/12	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Sodium	ppm	ASTM D5185(m)		1	---	---
Boron	ppm	ASTM D5185(m)	0	2	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	<1	---	---
Manganese	ppm	ASTM D5185(m)	0	<1	---	---
Magnesium	ppm	ASTM D5185(m)	0	24	---	---
Calcium	ppm	ASTM D5185(m)	50	87	---	---
Phosphorus	ppm	ASTM D5185(m)	330	327	---	---
Zinc	ppm	ASTM D5185(m)	430	347	---	---
Sulfur	ppm	ASTM D5185(m)	760	893	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	44.8	---	---

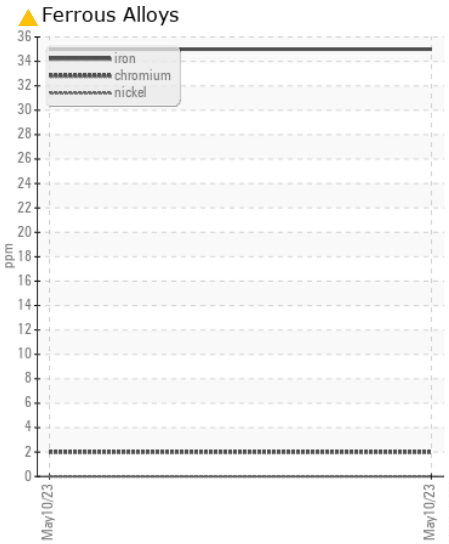


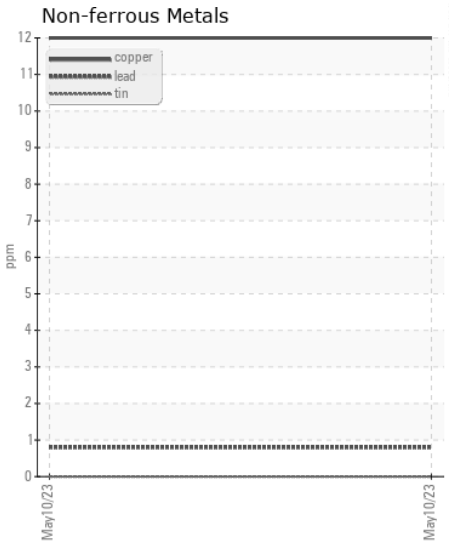


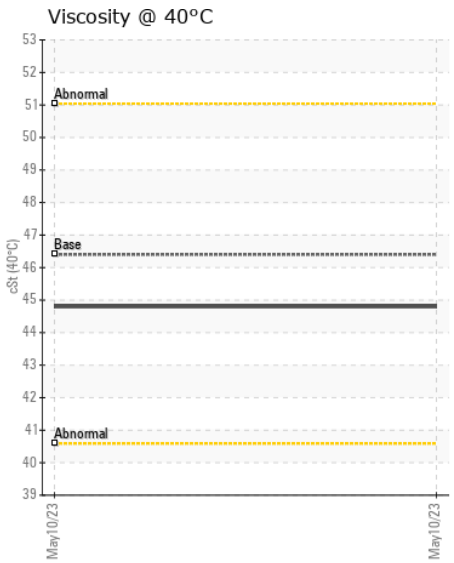


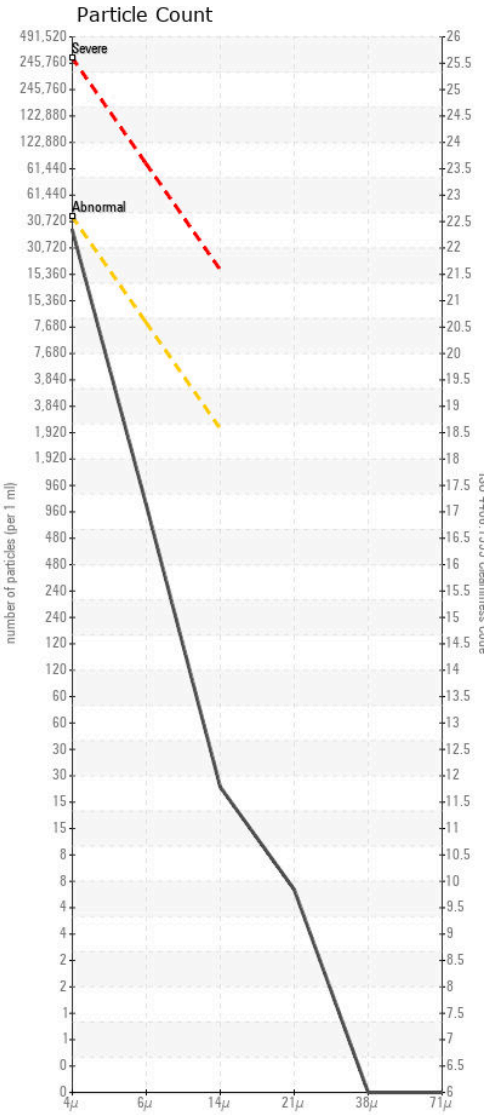












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**
Sample No. : LH0261691 **Recieved** : 16 May 2023 100 MACINTOSH BLVD
Lab Number : 02557870 **Diagnosed** : 16 May 2023 VAUGHAN, ON
Unique Number : 5578910 **Diagnostician** : Kevin Marson CA L4K 4P3
Test Package : MOB 1 (Additional Tests: PQ, PrtCount) Contact: Service Team

To discuss this sample report, contact Customer Service at 1-800-268-2131. service.team@roni.ca
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T:
Validity of results and interpretation are based on the sample and information as supplied. F: