



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
IRON SHORING

Machine Id
100-028

Component
Kelly Winch

Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0286935	---	---
Sample Date		Client Info		03 Apr 2024	---	---
Machine Age	hrs	Client Info		0	---	---
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				NORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		163	---	---
Iron	ppm	ASTM D5185(m)	>150	411	---	---
Chromium	ppm	ASTM D5185(m)	>10	5	---	---
Nickel	ppm	ASTM D5185(m)	>10	2	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>5	<1	---	---
Lead	ppm	ASTM D5185(m)	>15	0	---	---
Copper	ppm	ASTM D5185(m)	>80	<1	---	---
Tin	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

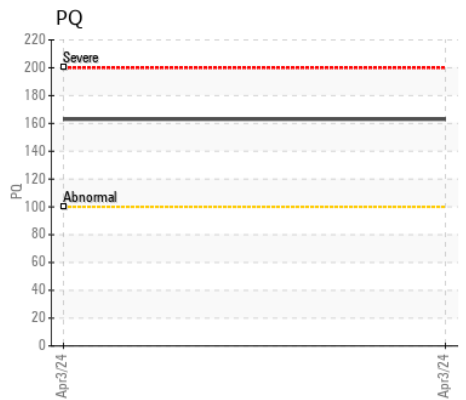
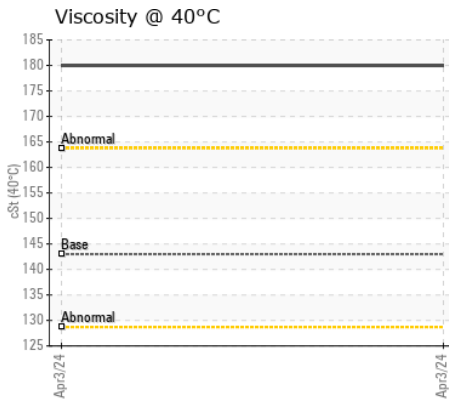
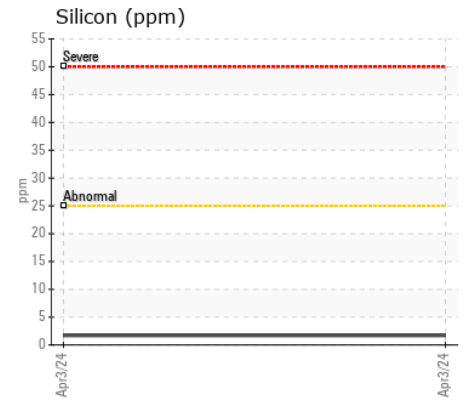
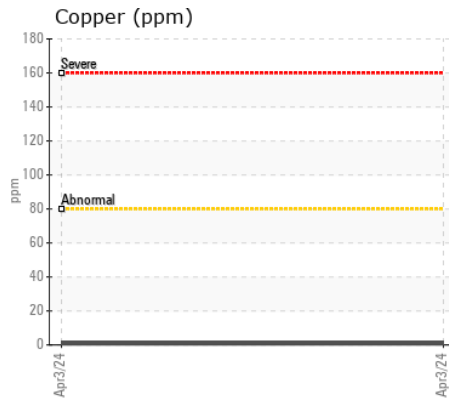
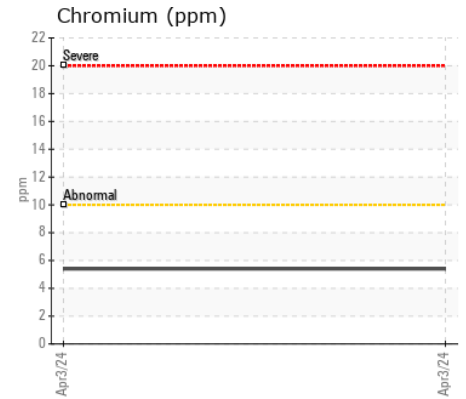
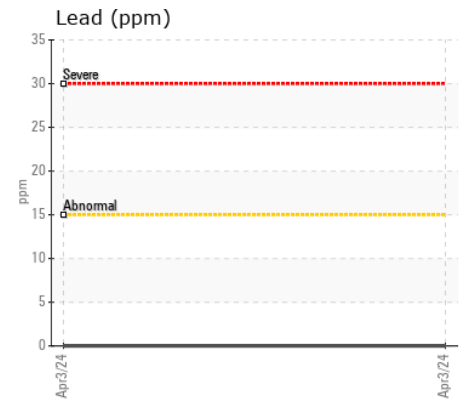
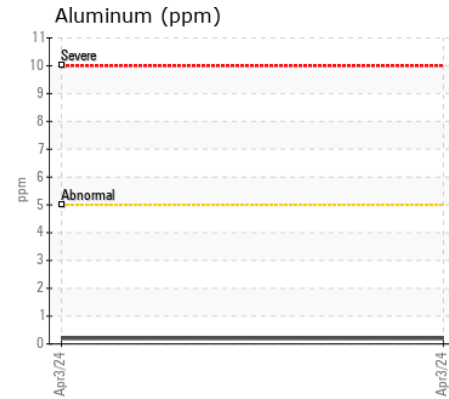
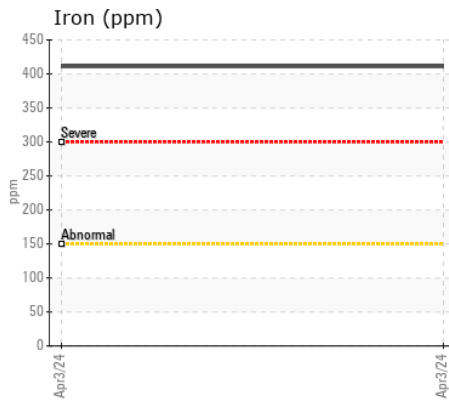
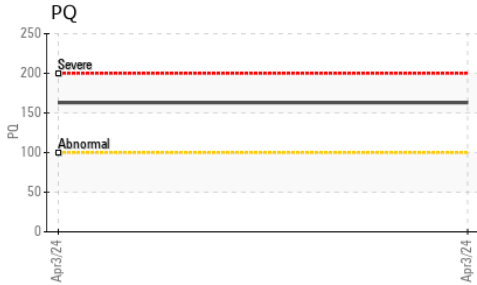
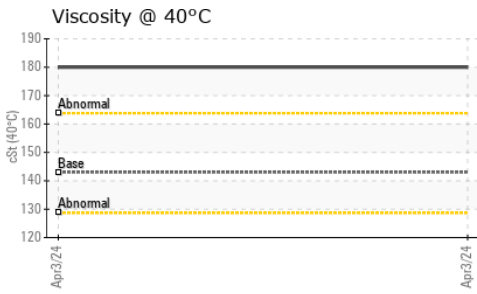
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	Visual*	NONE	VLITE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>170	2	---	---
Boron	ppm	ASTM D5185(m)	400	1	---	---
Barium	ppm	ASTM D5185(m)	200	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	12	0	---	---
Manganese	ppm	ASTM D5185(m)		3	---	---
Magnesium	ppm	ASTM D5185(m)	12	<1	---	---
Calcium	ppm	ASTM D5185(m)	150	49	---	---
Phosphorus	ppm	ASTM D5185(m)	1650	689	---	---
Zinc	ppm	ASTM D5185(m)	125	57	---	---
Sulfur	ppm	ASTM D5185(m)	22500	16361	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	143	180	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : LH0286935

Lab Number : 02626711

Unique Number : 5759843

Test Package : MOB 1 (Additional Tests: PQ)

Received : 04 Apr 2024

Tested : 04 Apr 2024

Diagnosed : 05 Apr 2024 - Kevin Marson

RONI/IRON SHORE EXCAVATING LTD.

100 MACINTOSH BLVD

VAUGHAN, ON

CA L4K 4P3

Contact: Nathan Fernandes

nfernandes@roni.ca

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: