



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R954C 023859

Component
Swing Drive

Fluid
PETRO CANADA TRAXON SYNTHETIC 75W90 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0289331	LH0278970	LH0215812
Sample Date		Client Info		20 Jun 2024	31 Oct 2023	03 Dec 2021
Machine Age	hrs	Client Info		22108	21550	19606
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		None	None	None
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>750	529	▲ 1265	607
Chromium	ppm	ASTM D5185(m)	>10	6	▲ 12	7
Nickel	ppm	ASTM D5185(m)	>5	2	▲ 5	2
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	0
Lead	ppm	ASTM D5185(m)	>5	1	5	2
Copper	ppm	ASTM D5185(m)	>250	53	75	76
Tin	ppm	ASTM D5185(m)	>10	1	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

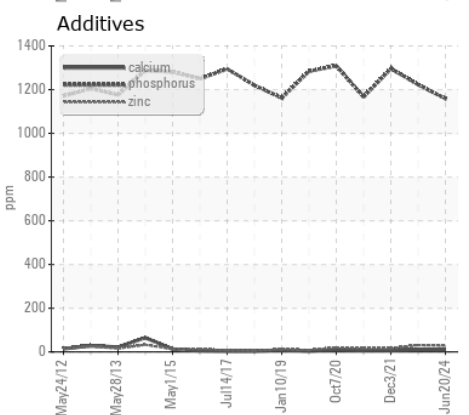
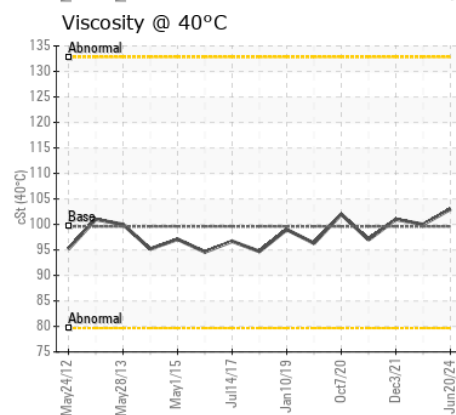
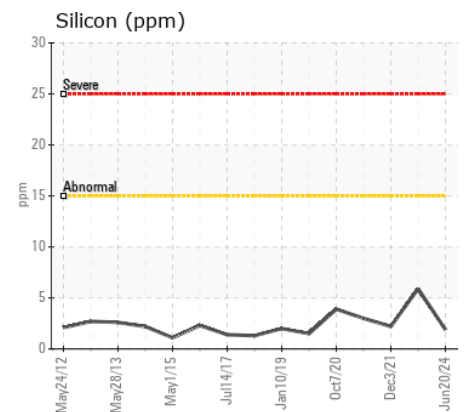
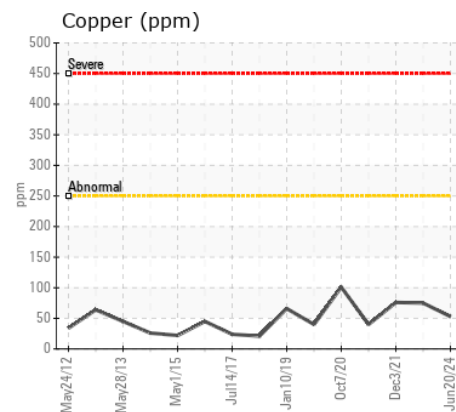
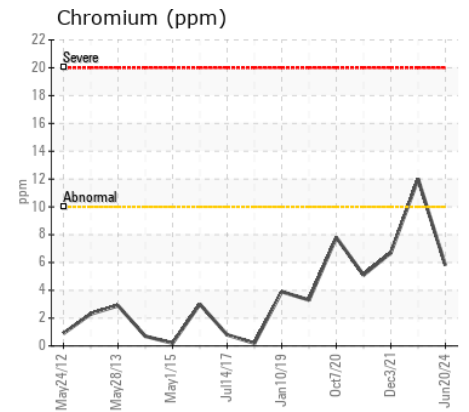
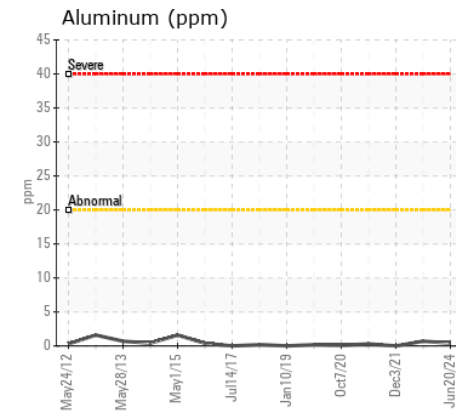
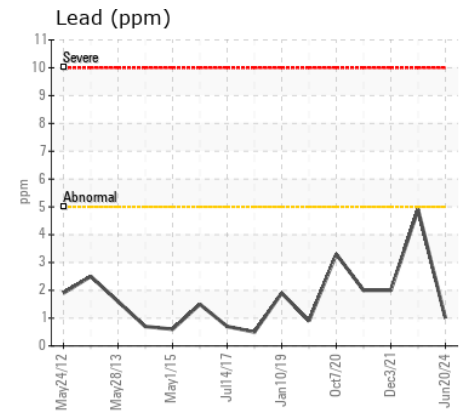
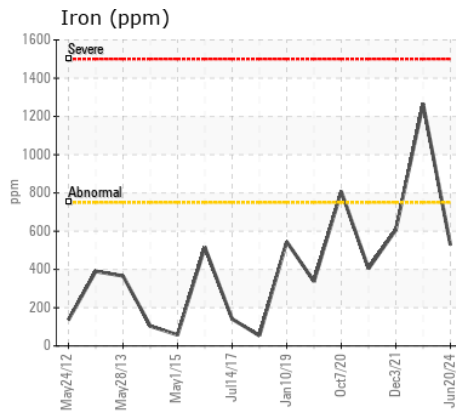
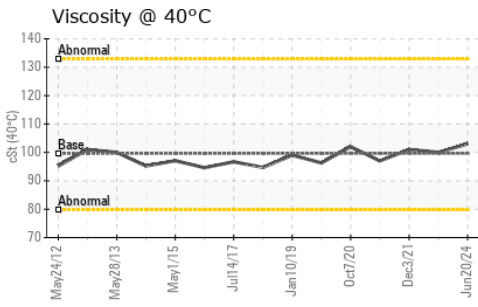
Free water present.

Silicon	ppm	ASTM D5185(m)	>15	2	6	2
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
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	▲ WGOIL	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.2%	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<1	1	<1
Boron	ppm	ASTM D5185(m)	328	126	252	151
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	<1	<1
Manganese	ppm	ASTM D5185(m)		4	8	4
Magnesium	ppm	ASTM D5185(m)	1	2	2	1
Calcium	ppm	ASTM D5185(m)	7	10	11	7
Phosphorus	ppm	ASTM D5185(m)	1145	1159	1223	1296
Zinc	ppm	ASTM D5185(m)	3	28	31	15
Sulfur	ppm	ASTM D5185(m)	17909	18879	21007	20385
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	103	100	101



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289331
Lab Number : 02644411
Unique Number : 5801950
Test Package : MOB 1
Received : 27 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Kevin Marson

Gerdau Ameristeel
 55A Fenmar Drive
 Toronto, ON
 CA M9L 1M3
 Contact: Liebherr Maintenance

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: