



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(366409)
Machine Id
LIEBHERR R945 053994-1866
Component
Left Final Drive
Fluid
PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0285026	LH0237710	LH0237759
Sample Date		Client Info		08 Feb 2024	11 Aug 2023	06 Mar 2023
Machine Age	hrs	Client Info		4053	3069	2125
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	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	277	▲ 1293	▲ 1067
Chromium	ppm	ASTM D5185(m)	>10	4	▲ 14	▲ 14
Nickel	ppm	ASTM D5185(m)	>10	2	4	7
Titanium	ppm	ASTM D5185(m)		2	9	▲ 14
Silver	ppm	ASTM D5185(m)		0	0	2
Aluminum	ppm	ASTM D5185(m)	>25	55	▲ 180	▲ 239
Lead	ppm	ASTM D5185(m)	>25	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>50	<1	<1	1
Tin	ppm	ASTM D5185(m)	>10	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	<1	<1
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

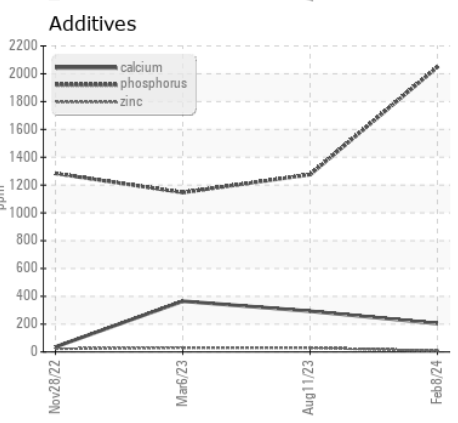
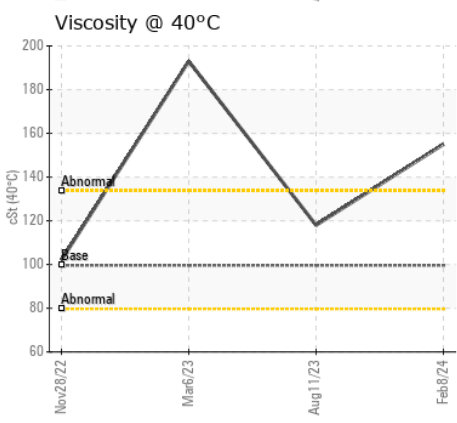
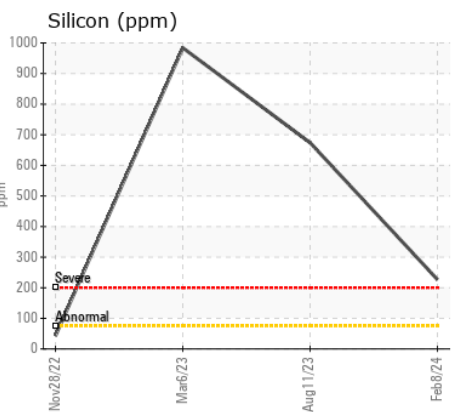
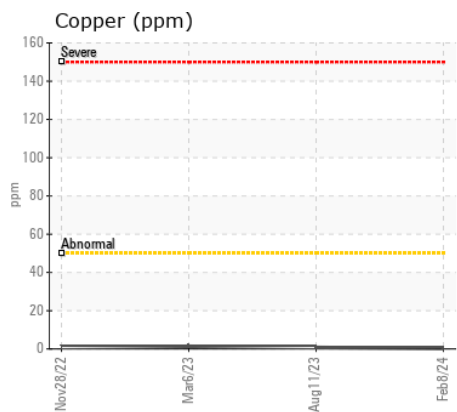
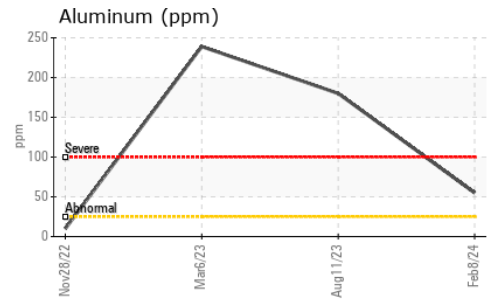
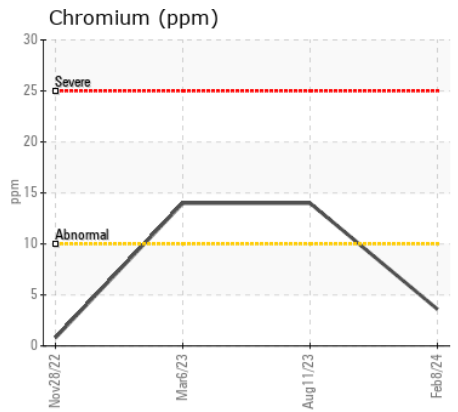
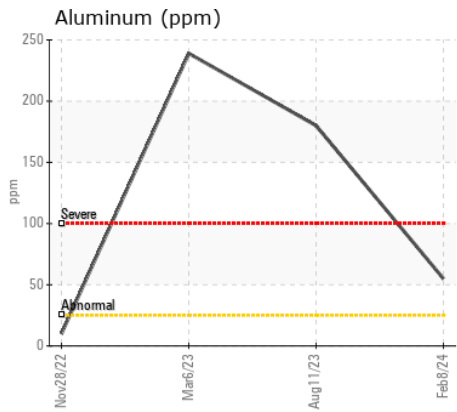
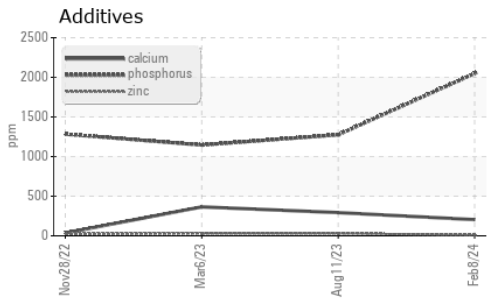
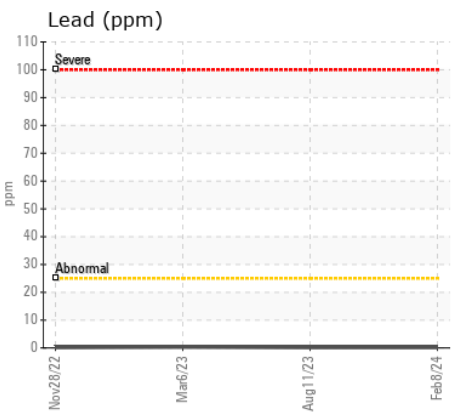
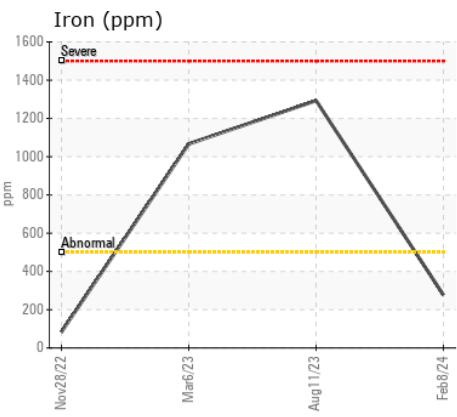
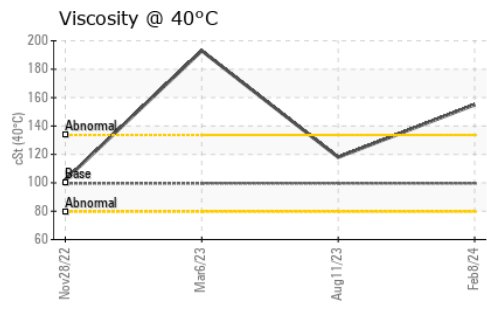
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	227	▲ 674	▲ 984
Potassium	ppm	ASTM D5185(m)	>20	21	60	80
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	VLITE	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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		16	47	68
Boron	ppm	ASTM D5185(m)	328	41	184	4
Barium	ppm	ASTM D5185(m)	1	<1	6	10
Molybdenum	ppm	ASTM D5185(m)		0	<1	1
Manganese	ppm	ASTM D5185(m)		2	12	12
Magnesium	ppm	ASTM D5185(m)	1	19	49	60
Calcium	ppm	ASTM D5185(m)	7	204	293	365
Phosphorus	ppm	ASTM D5185(m)	1145	2049	1275	1146
Zinc	ppm	ASTM D5185(m)	3	8	30	30
Sulfur	ppm	ASTM D5185(m)	17909	25260	21383	24651
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	155	118	193



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0285026
Lab Number : 02617477
Unique Number : 5734587
Test Package : MOB 1
Received : 22 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Kevin Marson

THOMAS CAVANAGH CONSTRUCTION LTD
 RR # 2, 9094 CAVANAGH ROAD
 ASHTON, ON
 CA K0A 1B0
 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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