



WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Scooptram
Machine Id
LHD1710
Component
Rear Differential
Fluid
PETRO CANADA TRAXON 80W90 (90 LTR)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

Copper ppm levels are severe. Tin ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated.

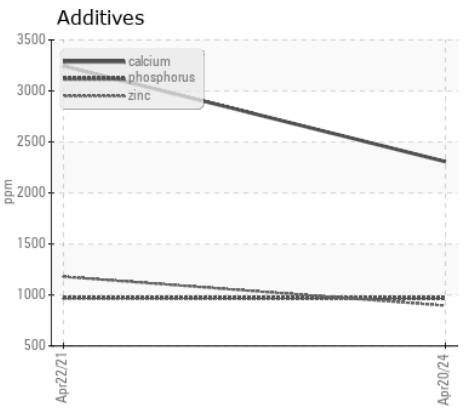
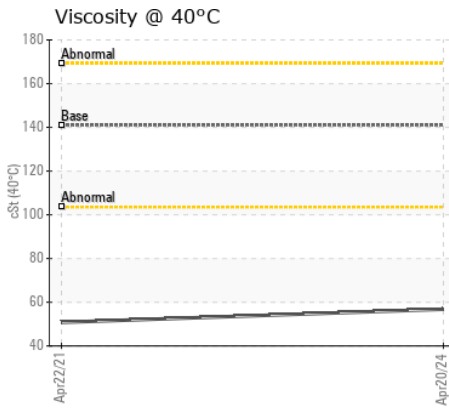
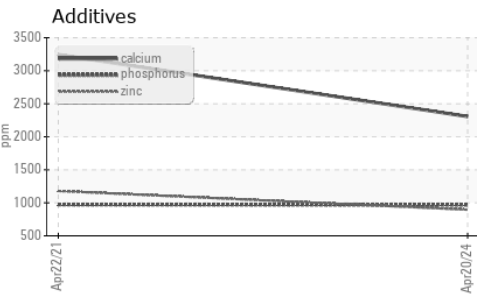
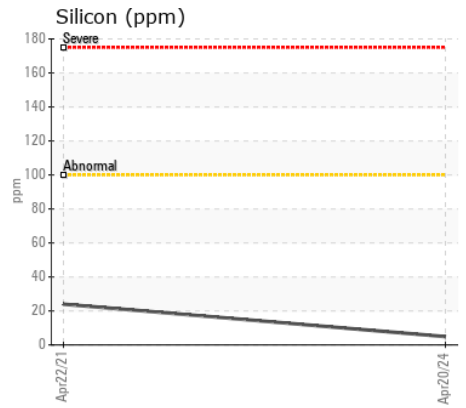
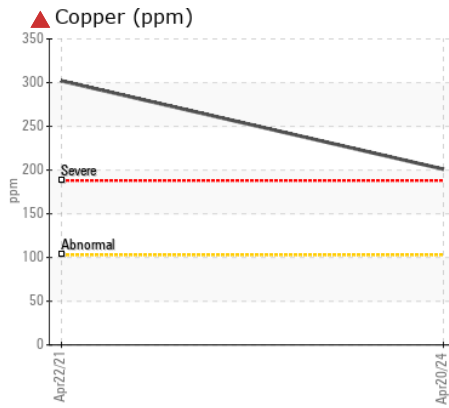
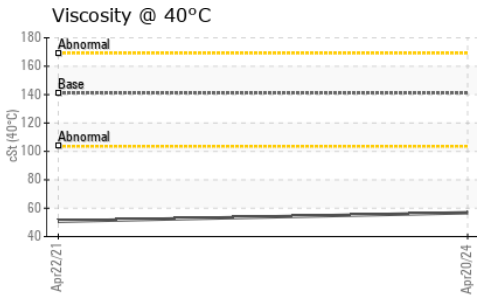
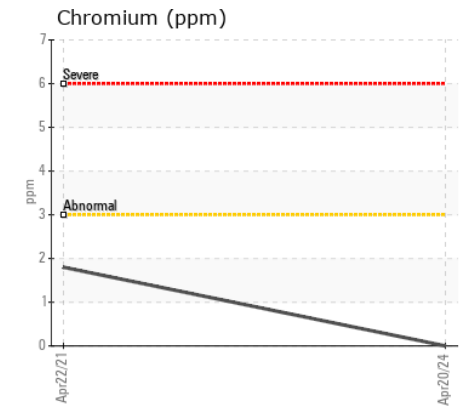
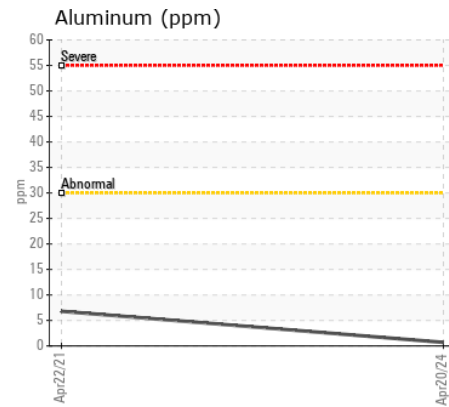
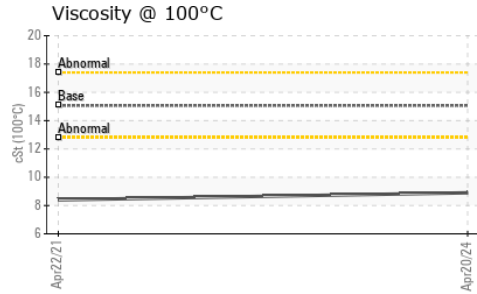
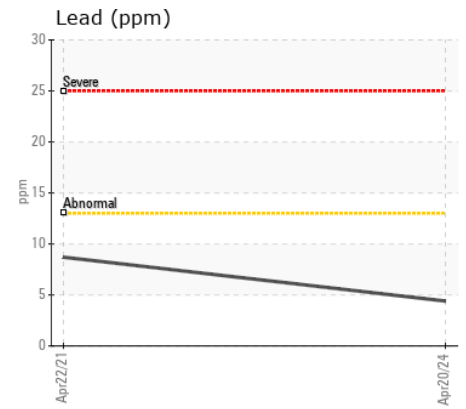
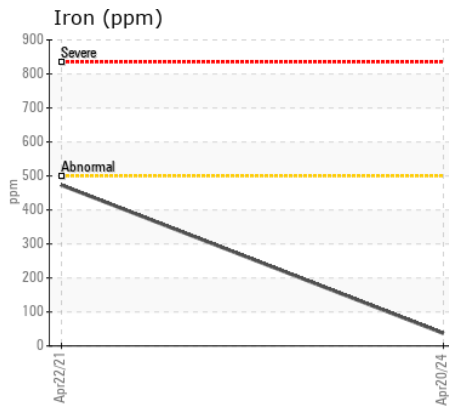
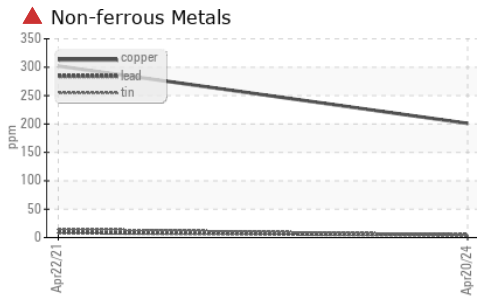
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. 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		PC0084754	PC0046584	---
Sample Date		Client Info		20 Apr 2024	22 Apr 2021	---
Machine Age	hrs	Client Info		10653	4331	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	SEVERE	---
Iron	ppm	ASTM D5185(m)	>500	37	473	---
Chromium	ppm	ASTM D5185(m)	>3	0	2	---
Nickel	ppm	ASTM D5185(m)	>3	0	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>30	<1	7	---
Lead	ppm	ASTM D5185(m)	>13	4	9	---
Copper	ppm	ASTM D5185(m)	>103	▲ 201	▲ 302	---
Tin	ppm	ASTM D5185(m)	>5	▲ 5	▲ 15	---
Vanadium	ppm	ASTM D5185(m)		0	<1	---
White Metal	scalar	Visual*	NONE	NONE	▲ MODER	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185(m)	>100	5	24	---
Potassium	ppm	ASTM D5185(m)	>20	<1	8	---
Water		WC Method	>.2	NEG	NEG	---
Silt	scalar	Visual*	NONE	VLITE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	---
Sodium	ppm	ASTM D5185(m)		2	12	---
Boron	ppm	ASTM D5185(m)	243	71	81	---
Barium	ppm	ASTM D5185(m)	1	0	0	---
Molybdenum	ppm	ASTM D5185(m)		0	2	---
Manganese	ppm	ASTM D5185(m)		<1	4	---
Magnesium	ppm	ASTM D5185(m)	2	14	20	---
Calcium	ppm	ASTM D5185(m)	6	2307	3244	---
Phosphorus	ppm	ASTM D5185(m)	987	967	972	---
Zinc	ppm	ASTM D5185(m)	1	895	1179	---
Sulfur	ppm	ASTM D5185(m)	21530	4336	3247	---
Visc @ 40°C	cSt	ASTM D7279(m)	141.0	56.8	50.8	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.06	8.9	8.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	108	134	▲ 140	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0084754 **Received** : 21 May 2024
Lab Number : **02636712** **Tested** : 21 May 2024
Unique Number : 5785874 **Diagnosed** : 22 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KV100, VI)

Lakeshore Gold Timmins West

Timmins, ON
CA

Contact: Dale Arseneau
darseneau@ca.panamericansilver.com

T: (705)269-4344

F:

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.