



CATERPILLAR ET0417 - Hydraulic System

Sample No: LH0284099

Oil Type: PETRO CANADA 30W



Sample Information

Sample Number	LH0284099	LH0260504	LH0240804	LH0192045
Sample Date	26 Mar 2024	06 Nov 2023	26 Oct 2022	19 Mar 2022
Machine Hours	12065	11574	10181	9424
Oil Hours	0	0	0	0
Oil Changed	Not Changd	N/A	Not Changd	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

Radius Recycling Canada Ltd.

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Oil Condition

Visc @ 40°C	cSt	53.7	39.7	38.5	38.5
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Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		3186	8179	2105	3301
Particles >6µm		133	125	517	488
Particles >14µm		16	7	57	43
ISO 4406:1999 (c)		19/14/11	20/14/10	18/16/13	19/16/13
Silicon	ppm	<1	2	2	1
Sodium	ppm	1	1	2	<1
Potassium	ppm	1	<1	<1	1



Wear Metals

PQ		0	0	0	0
Iron	ppm	20	37	26	21
Copper	ppm	1	2	3	3
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	1	2	<1	<1
Chromium	ppm	13	25	29	20
Molybdenum	ppm	0	0	<1	<1
Nickel	ppm	0	<1	<1	0
Titanium	ppm	0	0	<1	0
Silver	ppm	0	<1	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1310	148	173	169
Magnesium	ppm	16	4	6	6
Zinc	ppm	587	212	385	397
Phosphorus	ppm	774	624	710	685
Barium	ppm	<1	<1	0	<1
Boron	ppm	2	1	1	1

Diagnosis

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. Chromium and iron ppm levels are abnormal. Ring wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: AMISUR

Unique No: 5760510

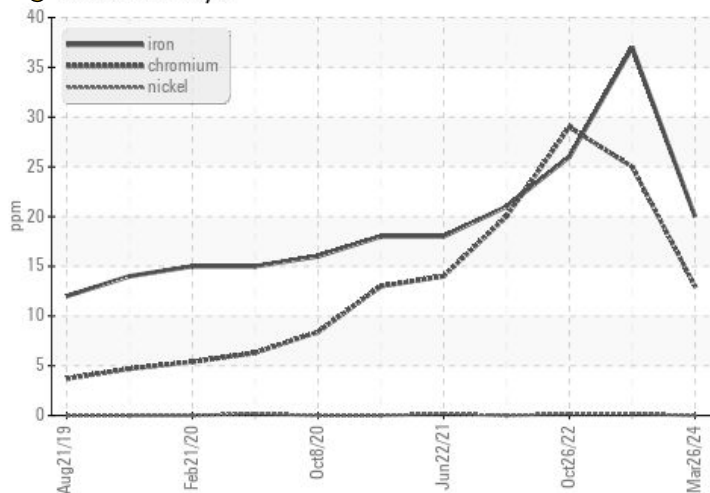
Signed: Kevin Marson

Report Date: 09 Apr 2024

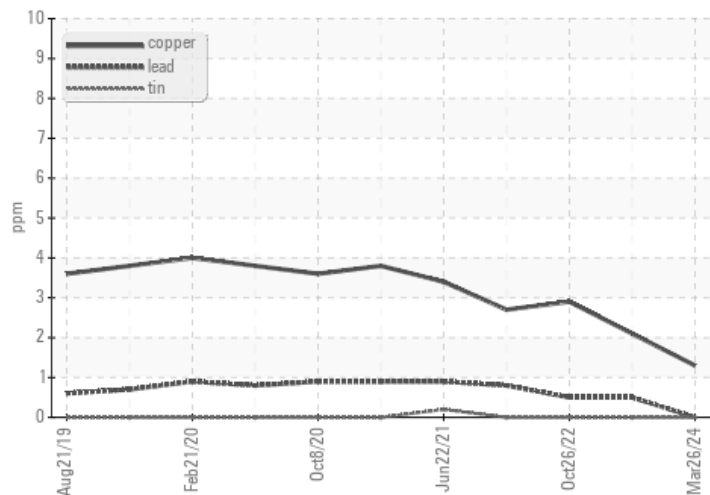


Graphs

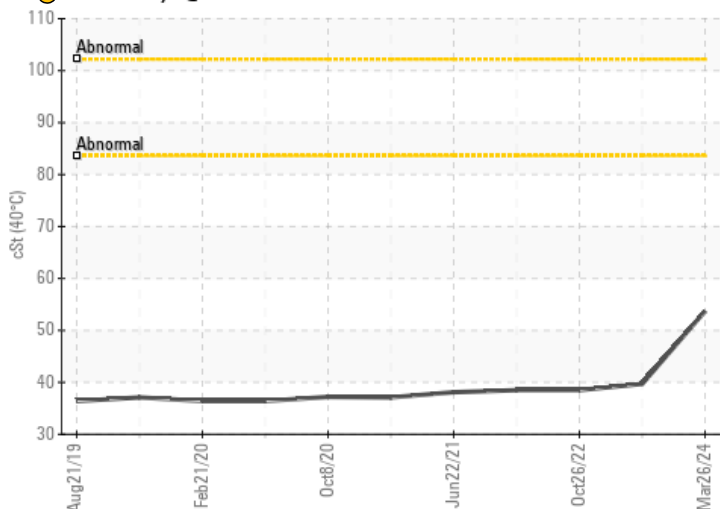
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

