



CATERPILLAR ET0417 - Hydraulic System

Sample No: LH0250498

Oil Type: PETRO CANADA PRODURO TO-4 SAE 30



SAMPLE INFORMATION

Sample Number	LH0250498	LH0240781	LH0240705	LH0221972
Sample Date	27 Jun 2023	15 Mar 2023	06 Jan 2023	20 Aug 2022
Machine Hours	11063	10690	10457	9958
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	SEVERE	SEVERE	ABNORMAL

Radius Recycling Canada Ltd.

12195 Musqueam Dr.

Surrey, BC

CA V3V 3T2

Contact: Chris Trinkunas

ctrinkunas@rdus.com

T:

F: (604)580-1922



OIL CONDITION

Visc @ 40°C	cSt	40.0	38.4	38.4	38.5
-------------	-----	------	------	------	------



CONTAMINATION

Particles >4µm		20801	4647	5362	1091
Particles >6µm		271	272	338	394
Particles >14µm		24	19	19	49
ISO 4406:1999 (c)		22/15/12	19/15/11	20/16/11	17/16/13
Silicon	ppm	2	2	2	2
Sodium	ppm	<1	2	2	1
Potassium	ppm	2	<1	0	<1



WEAR METALS

PQ		0	0	0	0
Iron	ppm	30	34	31	24
Copper	ppm	2	3	3	3
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	2	<1	<1	<1
Chromium	ppm	20	37	33	26
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	148	177	172	175
Magnesium	ppm	5	6	6	6
Zinc	ppm	215	365	375	389
Phosphorus	ppm	663	710	698	708
Barium	ppm	0	0	0	0
Boron	ppm	1	1	1	<1

Diagnosis

We recommend you service the filters on this component. 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. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within SAE 10W 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: 5629641

Signed: Kevin Marson

Report Date: 21 Aug 2023

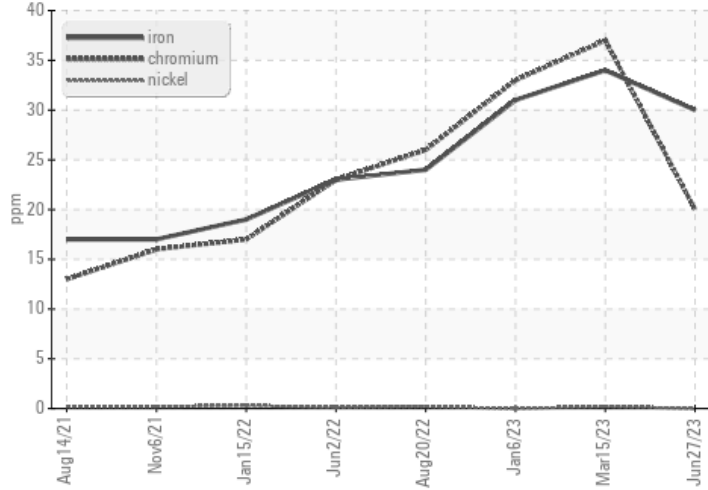
LIEBHERR

CONSTRUCTION EQUIPMENT

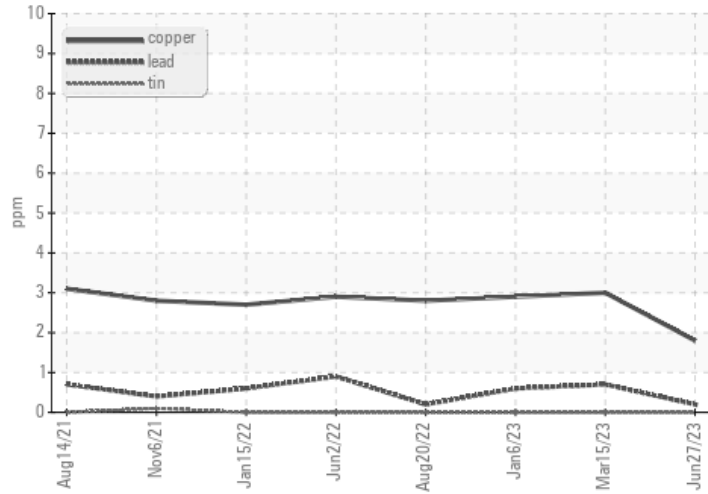


GRAPHS

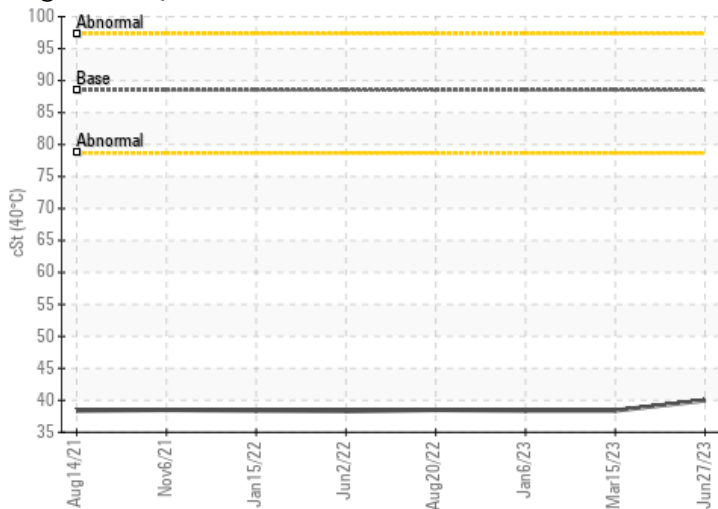
● Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C



● Particle Count

