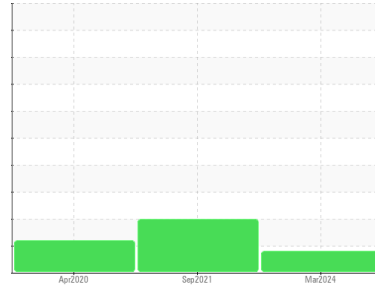


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CATERPILLAR 980M L56
 Component
Rear Right Final Drive
 Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0118450	PCA0016896	PCA0016951
Sample Date	Client Info		11 Mar 2024	27 Sep 2021	28 Apr 2020
Machine Age	hrs	Client Info	16346	9611	5001
Oil Age	hrs	Client Info	2183	0	1000
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	218	107	25
Chromium	ppm	ASTM D5185m >10	<1	1	<1
Nickel	ppm	ASTM D5185m >5	0	0	<1
Titanium	ppm	ASTM D5185m >15	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >75	15	24	3
Lead	ppm	ASTM D5185m >10	2	3	0
Copper	ppm	ASTM D5185m >75	▲ 77	▲ 202	19
Tin	ppm	ASTM D5185m >8	<1	<1	0
Antimony	ppm	ASTM D5185m >50	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	5	1	<1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	<1	0
Manganese	ppm	ASTM D5185m 0	4	2	<1
Magnesium	ppm	ASTM D5185m 9	23	14	8
Calcium	ppm	ASTM D5185m 3114	3003	3257	2711
Phosphorus	ppm	ASTM D5185m 1099	1076	1042	874
Zinc	ppm	ASTM D5185m 1245	1219	1289	1066
Sulfur	ppm	ASTM D5185m 7086	6252	6394	8700

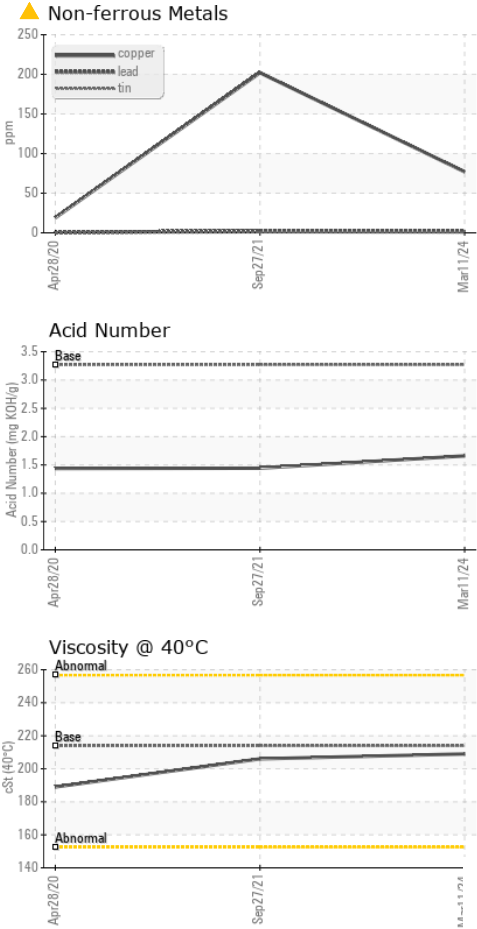
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	17	18	16
Sodium	ppm	ASTM D5185m	1	1	<1
Potassium	ppm	ASTM D5185m >20	0	0	0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 3.27	1.66	1.442	1.437

OIL ANALYSIS REPORT

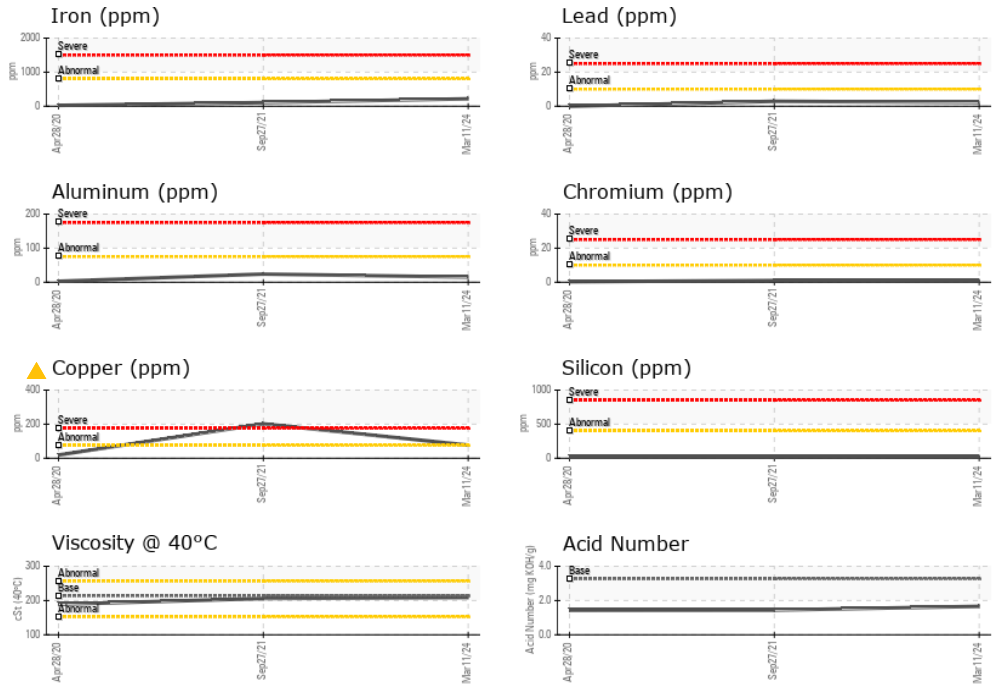


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	MODER	NONE ▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	NONE	▲ HEAVY NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE NONE
Silt	scalar	*Visual	NONE	NONE	NONE NONE
Debris	scalar	*Visual	NONE	NONE	NONE NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE NONE
Appearance	scalar	*Visual	NORML	NORML	NORML NORML
Odor	scalar	*Visual	NORML	NORML	NORML NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG NEG
Free Water	scalar	*Visual		NEG	NEG NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213.9	209	206 189

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118450
Lab Number : 06121001
Unique Number : 10929834
Test Package : MOB 2

SCRAP METAL SERVICES (SMS Mill Services LLC)
 1500 COMMERCIAL AVE
 MINGO JUNCTION, OH
 US 43938
 Contact: FRANK NALLY
 fnally@scrapmetalservices.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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