



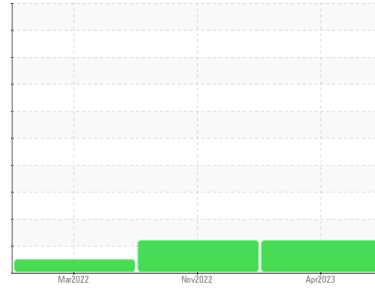
OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL



Area
GUAY SON [CONHER]
 Machine Id
CATERPILLAR CHUYITO XXVIII - IBACO
 Component
Transmission (Manual)
 Fluid
Transmission (Manual) Oil (60 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

No other contaminants were detected in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KL0011398	KL0011272	KL0009166
Sample Date	Client Info		06 Apr 2023	22 Nov 2022	25 Mar 2022
Machine Age	hrs	Client Info	14970	13719	1511
Oil Age	hrs	Client Info	399	649	1511
Oil Changed	Client Info		Not Chngd	Not Chngd	N/A
Sample Status			ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	4	2	4
Chromium	ppm	ASTM D5185m >5	0	<1	0
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >7	0	0	<1
Aluminum	ppm	ASTM D5185m >25	<1	1	<1
Lead	ppm	ASTM D5185m >45	0	<1	0
Copper	ppm	ASTM D5185m >225	5	12	7
Tin	ppm	ASTM D5185m >10	0	<1	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	8	10	99
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	1	2	28
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	19	14	121
Calcium	ppm	ASTM D5185m	3605	3077	3095
Phosphorus	ppm	ASTM D5185m	983	930	947
Zinc	ppm	ASTM D5185m	896	857	782
Sulfur	ppm	ASTM D5185m	5852	4846	4074

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >125	14	7	5
Sodium	ppm	ASTM D5185m	<1	1	3
Potassium	ppm	ASTM D5185m >20	0	0	0

FLUID CLEANLINESS

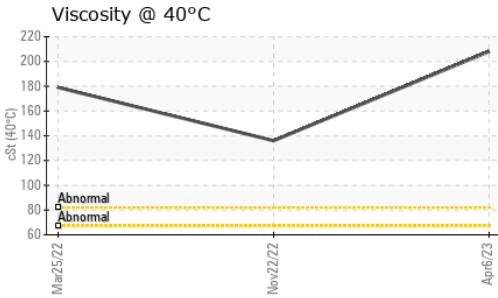
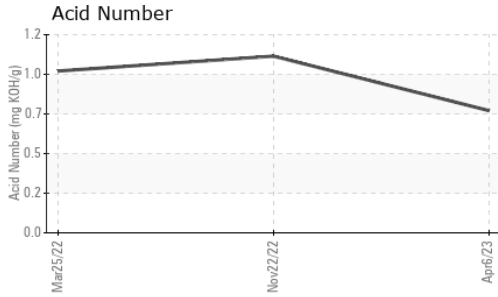
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		---	---	14739
Particles >6µm	ASTM D7647	>2500	---	---	1708
Particles >14µm	ASTM D7647	>320	---	---	58
Particles >21µm	ASTM D7647	>80	---	---	9
Particles >38µm	ASTM D7647	>20	---	---	0
Particles >71µm	ASTM D7647	>4	---	---	0
Oil Cleanliness	ISO 4406 (c)	>18/15	---	---	18/13

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.74	1.07	0.98



OIL ANALYSIS REPORT



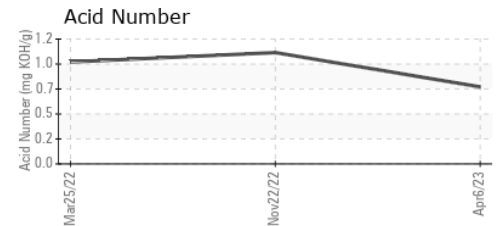
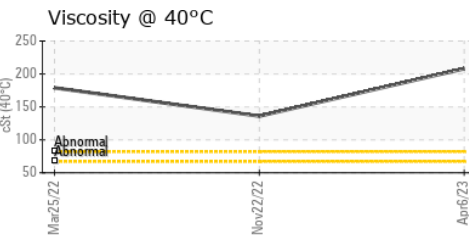
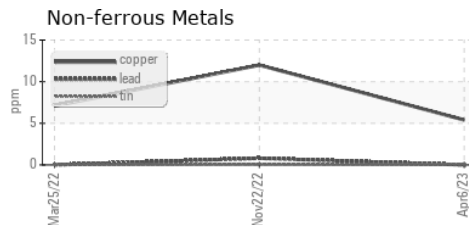
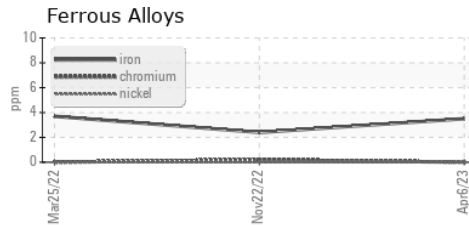
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	▲ MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	208	136	179

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0011398 **Received** : 14 Apr 2023
Lab Number : 05820879 **Diagnosed** : 18 Apr 2023
Unique Number : 10428962 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: PrtCount)

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)

CONOR
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