OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
VILTER CCUP-FGC
Component
Compressor
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend that you use electrostatic or in-depth filtration to remove insolubles from the oil and to reduce the levels of varnish in the system. Alternatively draining a percentage of the oil and topping up with fresh oil (sweetening the oil) may provide a reduction in the varnish potential level. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

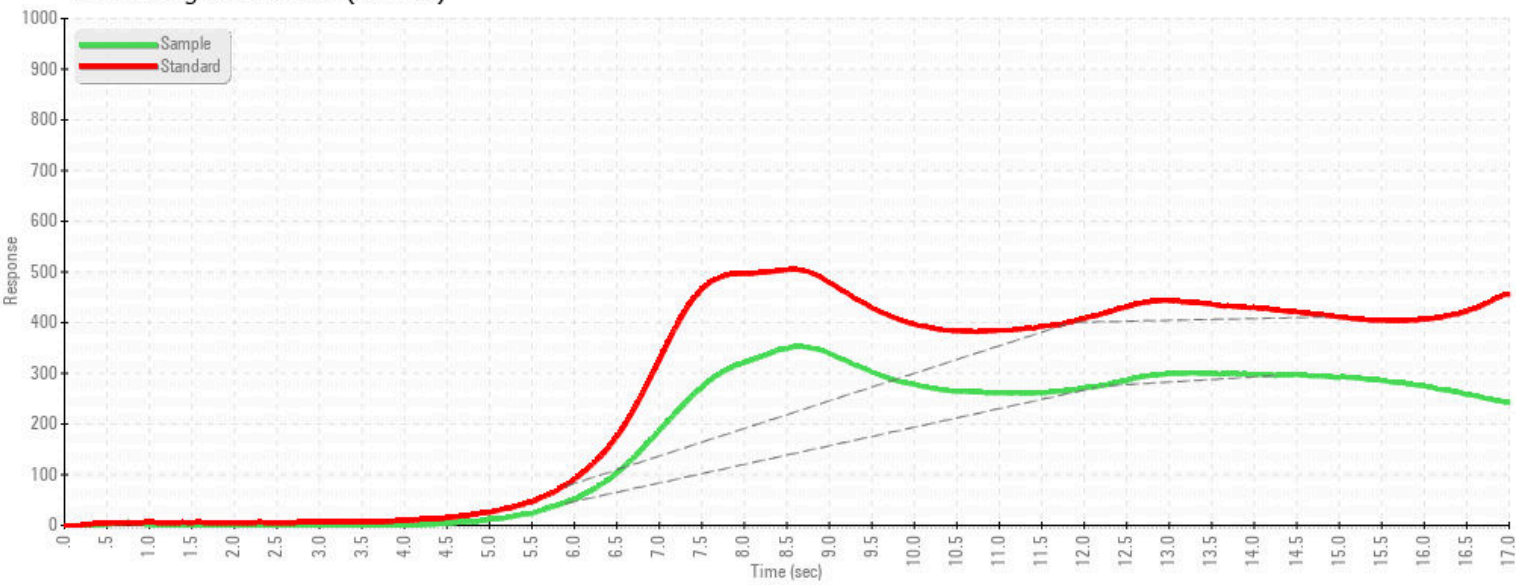
MPC (Membrane Patch Colorimetry) test indicates a high concentration of varnish present. The water content is negligible. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

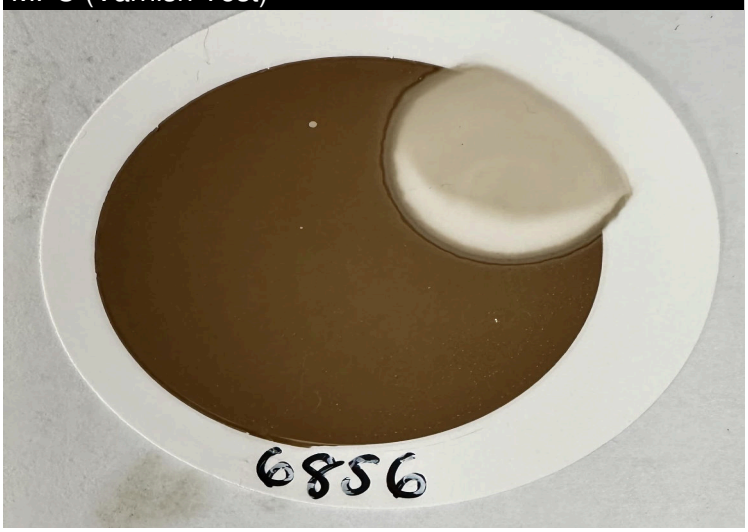
The AN level is acceptable for this fluid. Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0896678	WC0896681	WC0896671
Sample Date		Client Info		20 Jun 2024	30 Apr 2024	16 Jan 2024
Machine Age	hrs	Client Info		104000	104000	104000
Oil Age	hrs	Client Info		104000	104000	104000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>50	<1	<1	0
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m		<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>15	3	1	2
Lead	ppm	ASTM D5185m	>65	<1	<1	0
Copper	ppm	ASTM D5185m	>65	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>35	<1	<1	0
Potassium	ppm	ASTM D5185m	>20	1	1	1
Water	%	ASTM D6304	>0.1	0.001	0.002	0.004
ppm Water	ppm	ASTM D6304	>1000	12	18	50
MPC Varnish Potential	Scale	ASTM D7843	>15	▲ 58	▲ 59	8
Particles >4µm		ASTM D7647	>10000	577	2591	1203
Particles >6µm		ASTM D7647	>2500	195	406	428
Particles >14µm		ASTM D7647	>320	20	36	66
Particles >21µm		ASTM D7647	>80	5	15	24
Particles >38µm		ASTM D7647	>20	0	1	2
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	16/15/11	19/16/12	17/16/13
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		0	5	0
Phosphorus	ppm	ASTM D5185m		32	44	46
Zinc	ppm	ASTM D5185m		2	0	0
Sulfur	ppm	ASTM D5185m		288	163	182
Acid Number (AN)	mg KOH/g	ASTM D8045		0.10	0.13	0.082
Visc @ 40°C	cSt	ASTM D445		105	103	102
Anti-Oxidant 1	%	ASTM D6971	<25	67	60	83
Anti-Oxidant 2	%	ASTM D6971	<25	31	36	69

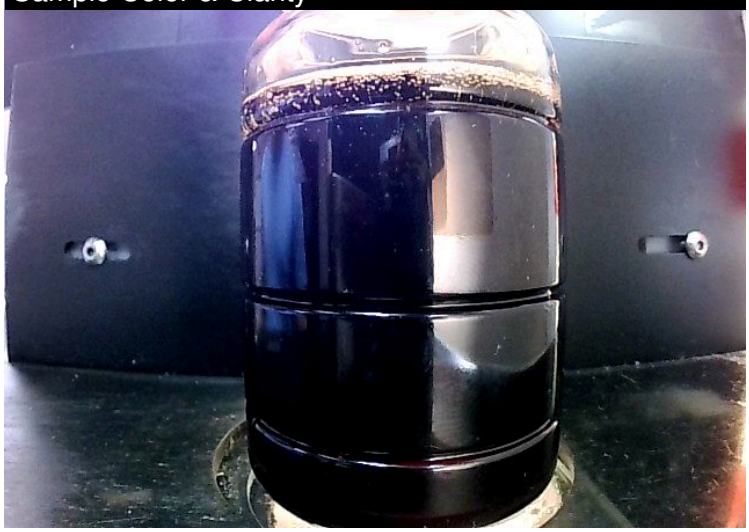
Remaining Useful Life (RULER)



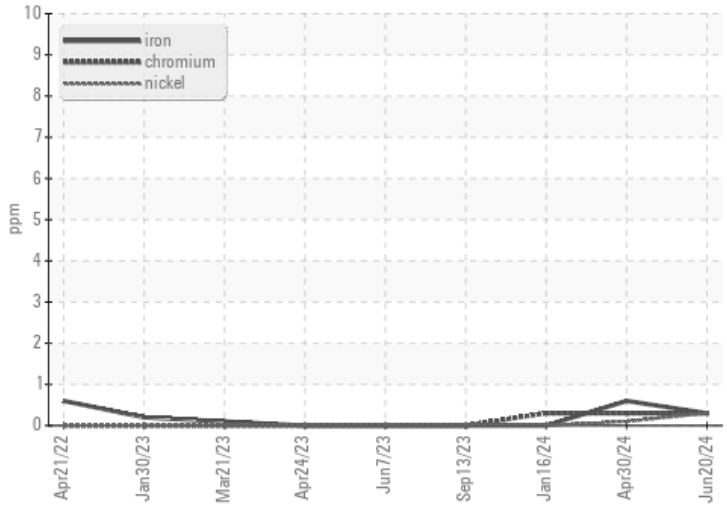
MPC (Varnish Test)



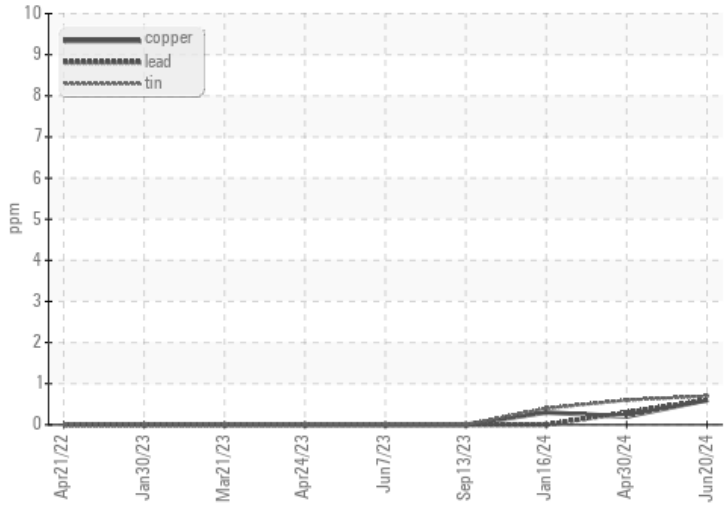
Sample Color & Clarity



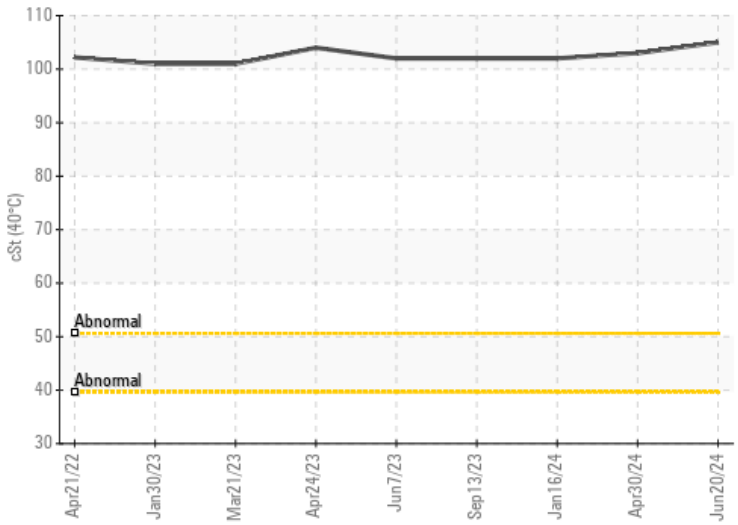
Ferrous Alloys



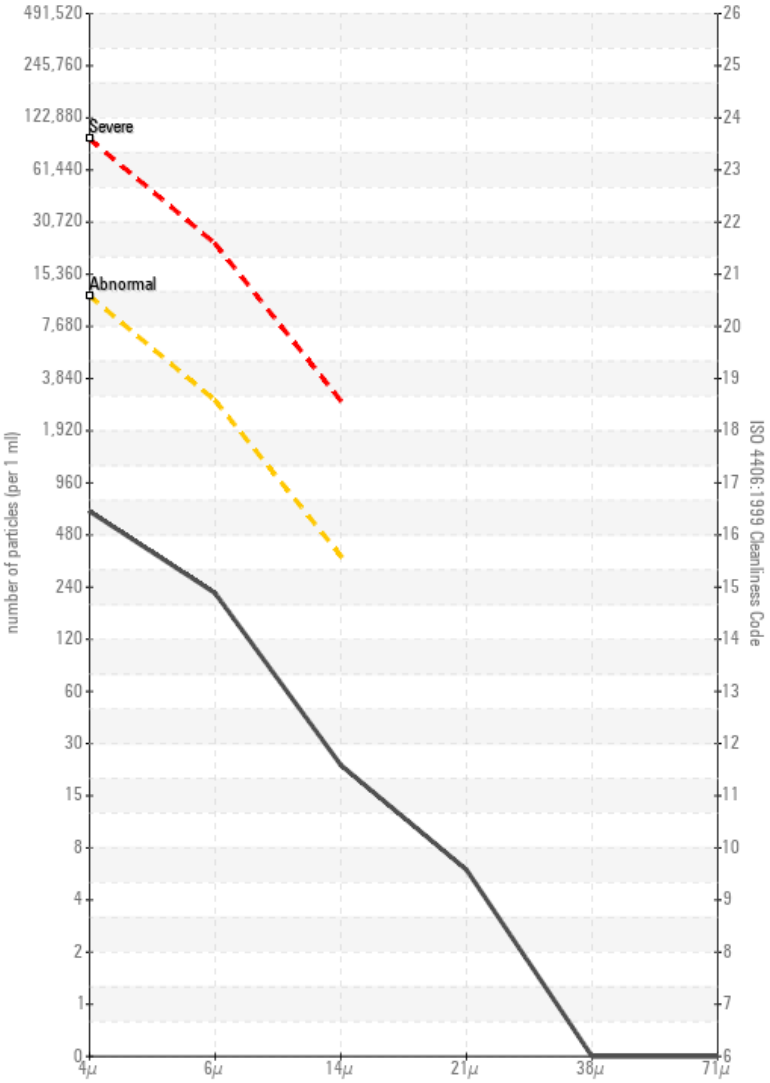
Non-ferrous Metals



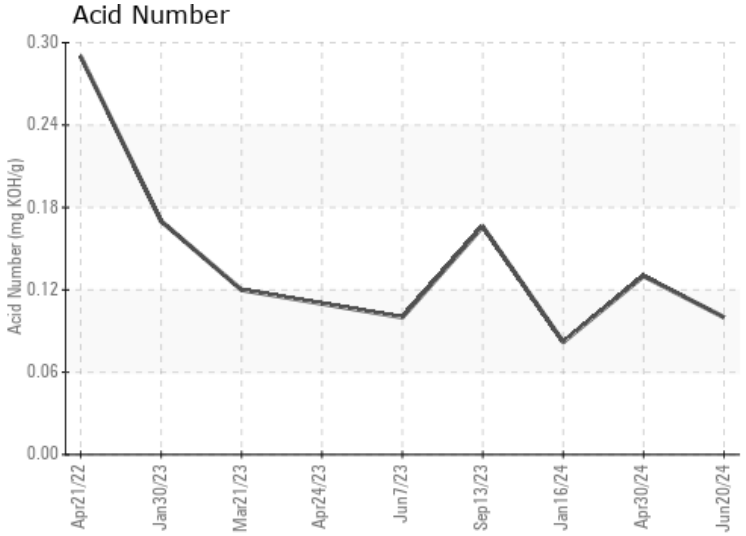
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0896678
Lab Number : 06216856
Unique Number : 11089720
Test Package : AOM 1 (Additional Tests: KF)

Received : 21 Jun 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Doug Bogart

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)

NORTH CAROLINA STATE UNIVERSITY
621 MOTOR POOL DR, FACILITIES DIVISION WAREHOUSE
RALEIGH, NC
US 27607
Contact: PAUL WALKER
apwalke3@ncsu.edu
T: (919)513-3646
F:

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