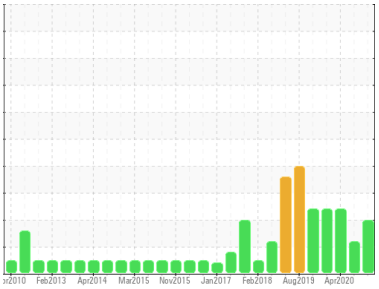
PROBLEM SUMMARY

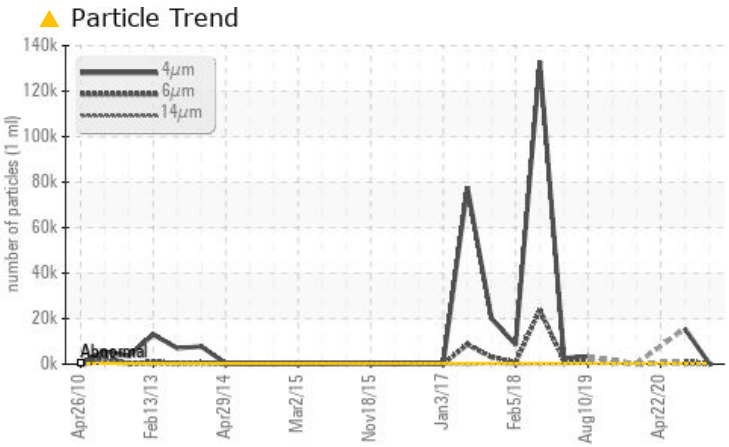
Sample Rating Trend



ISO

Machine Id
360.XX100-29 HYDRAULIC BARKO (S/N 360-100-29)
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 46 (250 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>320	▲ **407**	▲ 15608	---
Particles >6µm		ASTM D7647	>80	▲ **122**	▲ 1318	---
Particles >14µm		ASTM D7647	>10	▲ **15**	▲ 21	---
Particles >21µm		ASTM D7647	>3	▲ **4**	3	---
Oil Cleanliness		ISO 4406 (c)	>15/13/10	▲ **16/14/11**	▲ 21/18/12	---

Customer Id: WEYNEW
Sample No.: WC0799243
Lab Number: 05808992
Test Package: AOM 1

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

14 Jan 2022 Diag: Doug Bogart

ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present. 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. The condition of the oil is suitable for further service.

view report

22 Apr 2020 Diag: Don Baldridge

WATER

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. There is too much water present in this sample to perform a particle count.All component wear rates are normal. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid.

view report

31 Jan 2020 Diag: Don Baldridge

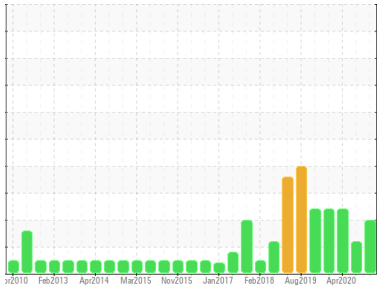
WATER

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
360.XX100-29 HYDRAULIC BARKO (S/N 360-100-29)
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 46 (250 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of particulates present in the oil. MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present.

Fluid Condition
Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. 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		**WC0799243**	RP0001025	RP0003352
Sample Date		Client Info		**31 Mar 2023**	14 Jan 2022	22 Apr 2020
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	1	<1
Chromium	ppm	ASTM D5185m	>20	**0**	0	<1
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>20	**0**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	<1	<1
Tin	ppm	ASTM D5185m	>20	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

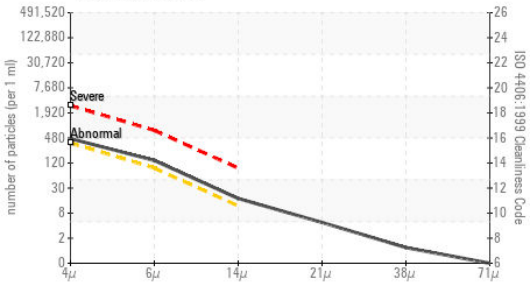
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m		**4**	0	<1
Calcium	ppm	ASTM D5185m		**116**	85	86
Phosphorus	ppm	ASTM D5185m		**449**	416	435
Zinc	ppm	ASTM D5185m		**<1**	16	0
Sulfur	ppm	ASTM D5185m		**1962**	1500	1572

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	0	0
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	0
Water	%	ASTM D6304	>0.05	**0.005**	0.004	▲ 0.113
ppm Water	ppm	ASTM D6304	>500	**55.5**	49.2	▲ 1130

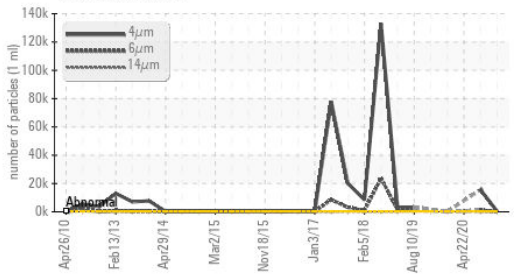
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>320	▲ **407**	▲ 15608	---
Particles >6µm		ASTM D7647	>80	▲ **122**	▲ 1318	---
Particles >14µm		ASTM D7647	>10	▲ **15**	▲ 21	---
Particles >21µm		ASTM D7647	>3	▲ **4**	3	---
Particles >38µm		ASTM D7647	>3	**1**	0	---
Particles >71µm		ASTM D7647	>3	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>15/13/10	▲ **16/14/11**	▲ 21/18/12	---

OIL ANALYSIS REPORT

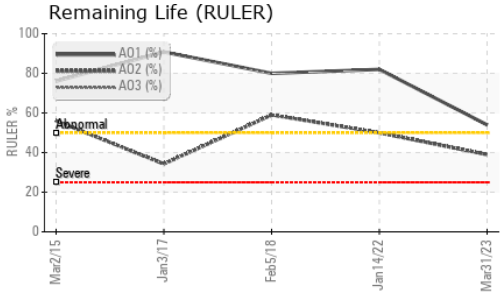
Particle Count



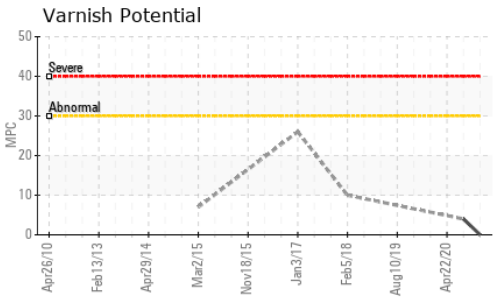
Particle Trend



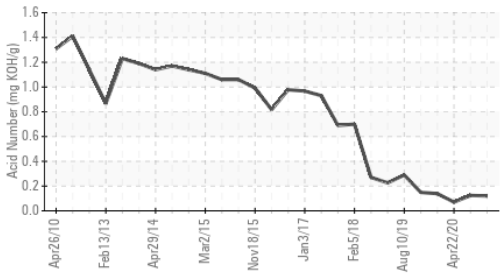
Remaining Life (RULER)



Varnish Potential



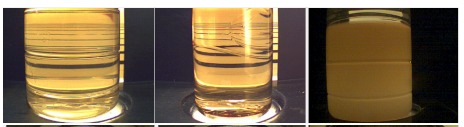
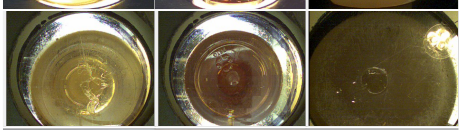
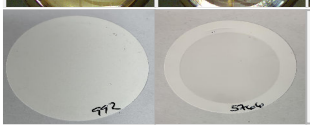
Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.12**	0.124	0.070
Anti-Oxidant 1	%	ASTM D6971	<25	**54**	82	---
Anti-Oxidant 2	%	ASTM D6971	<25	**39**	50	---
MPC Varnish Potential	Scale	ASTM D7843	>15	**0**	4	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	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	▲ HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.6	**45.7**	45.3	46.4

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

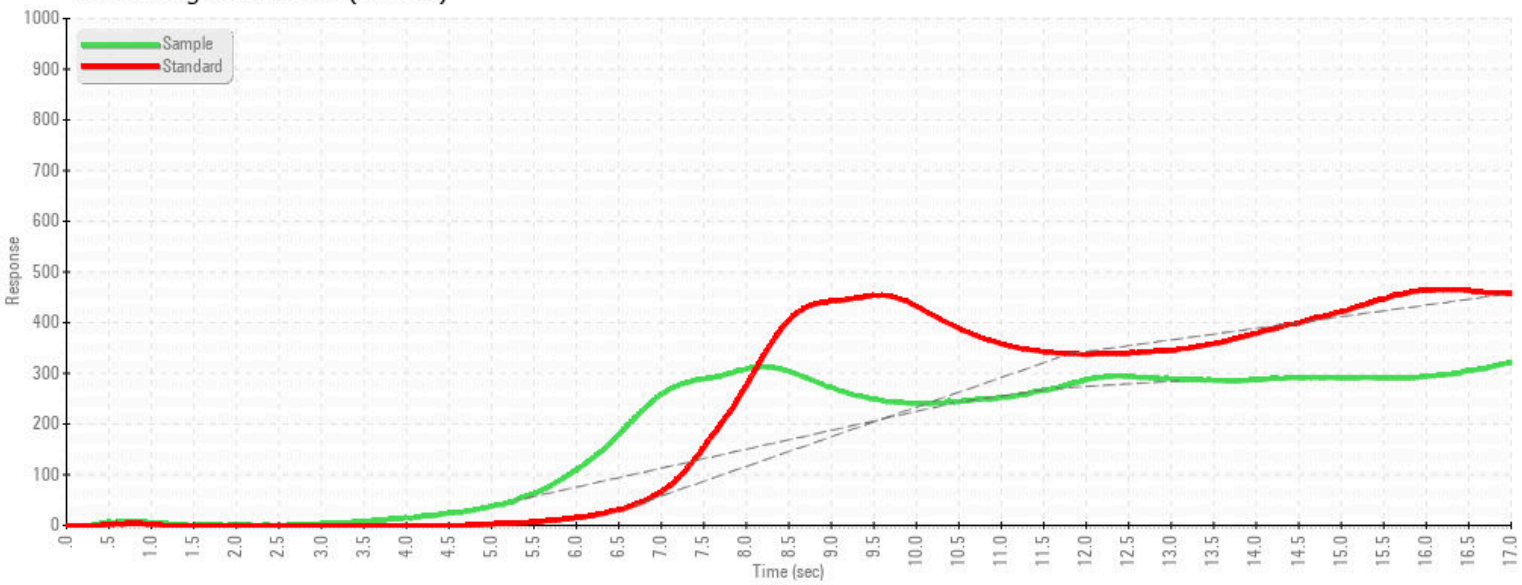
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0799243 **Received** : 03 Apr 2023
Lab Number : 05808992 **Diagnosed** : 14 Apr 2023
Unique Number : 10406521 **Diagnostician** : Doug Bogart
Test Package : AOM 1 (Additional Tests: KF)

Certificate L2367

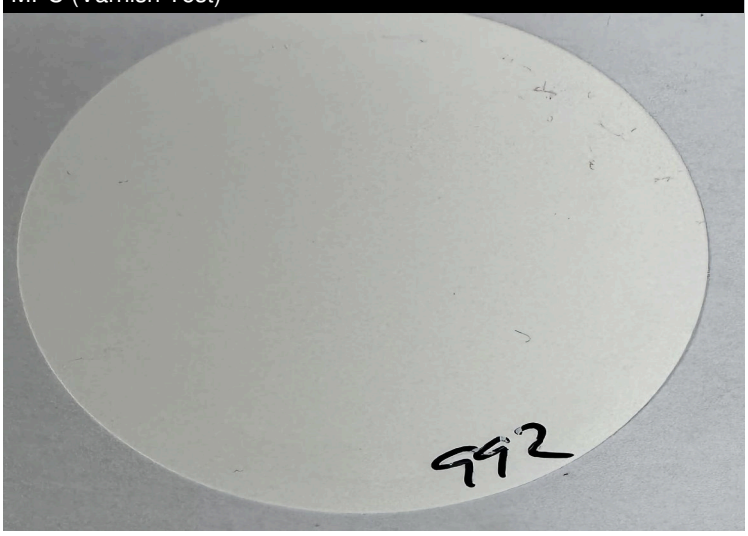
To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

INTERNATIONAL PAPER
1785 Weyerhaeuser Road
VANCEBORO, NC
US 28586
Contact: DOUG WEIR
Doug.Weir@ipaper.com;jon.fazenbaker@wearcheck.com
T: (252)633-7350
F: (252)633-7761

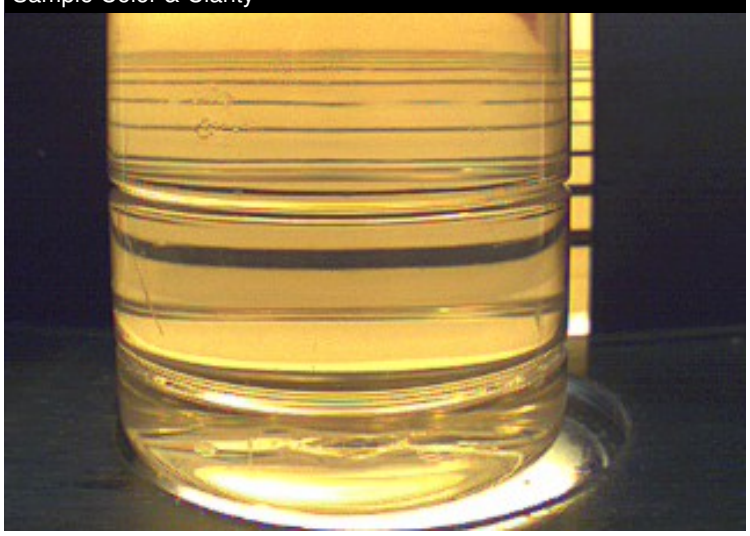
Remaining Useful Life (RULER)



MPC (Varnish Test)



Sample Color & Clarity



This page left intentionally blank