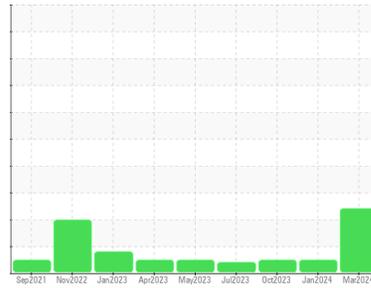




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Area
[989050]
 Machine Id
13046 CML 1
 Component
Hydraulic System
 Fluid
PHILLIPS 66 Powerflow NZ AW46 (--- 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

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

Fluid Condition

Linear Sweep Voltammetry (RULER- ASTM D6971) testing indicates a low amount of one of the anti-oxidants present in the oil, however, the other anti-oxidant(s) are still performing adequately. 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		WC0891278	WC0816147	WC0774387
Sample Date	Client Info		28 Mar 2024	03 Jan 2024	10 Oct 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			MARGINAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<1	0	0
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	5	4	3
Tin	ppm	ASTM D5185m >20	<1	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	1
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	0	3
Calcium	ppm	ASTM D5185m	45	47	78
Phosphorus	ppm	ASTM D5185m	549	435	483
Zinc	ppm	ASTM D5185m	635	593	589
Sulfur	ppm	ASTM D5185m	1630	943	1165

CONTAMINANTS

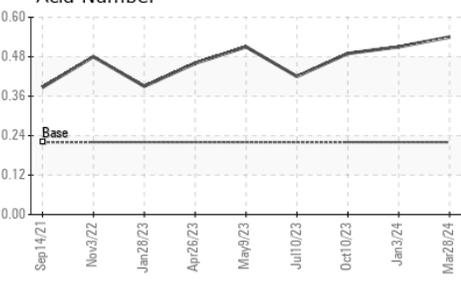
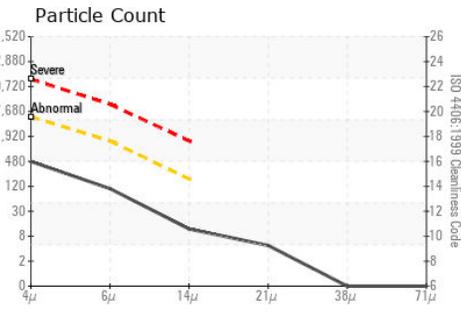
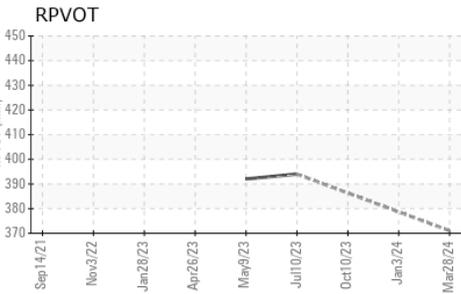
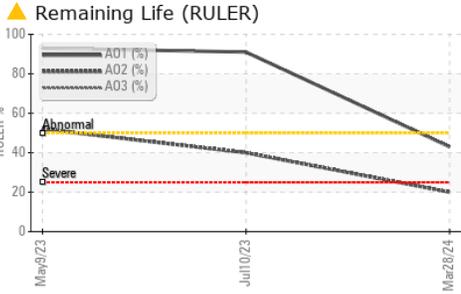
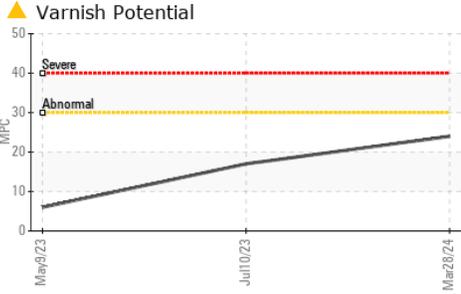
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	0	<1
Sodium	ppm	ASTM D5185m	0	<1	<1
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.05	0.004	---	---
ppm Water	ppm	ASTM D6304 >500	46	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	420	680	1125
Particles >6µm	ASTM D7647	>1300	93	130	258
Particles >14µm	ASTM D7647	>160	10	10	28
Particles >21µm	ASTM D7647	>40	4	2	6
Particles >38µm	ASTM D7647	>10	0	0	1
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	16/14/10	17/14/10	17/15/12



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.22	0.54	0.51	0.49
Anti-Oxidant 1	%	ASTM D6971	<25	43	---	---
Anti-Oxidant 2	%	ASTM D6971	<25	▲ 20	---	---
MPC Varnish Potential	Scale	ASTM D7843	>15	▲ 24	---	---

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	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.3	43.9	43.8
Oxidation Test (RPVOT)	minutes	*ASTM D2272		371	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color					
Bottom					
MPC					



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0891278 **Received** : 08 Apr 2024
Lab Number : **06141322** **Tested** : 22 Apr 2024
Unique Number : 10966130 **Diagnosed** : 22 Apr 2024 - Doug Bogart
Test Package : AOM 1 (Additional Tests: KF, RPVOT)

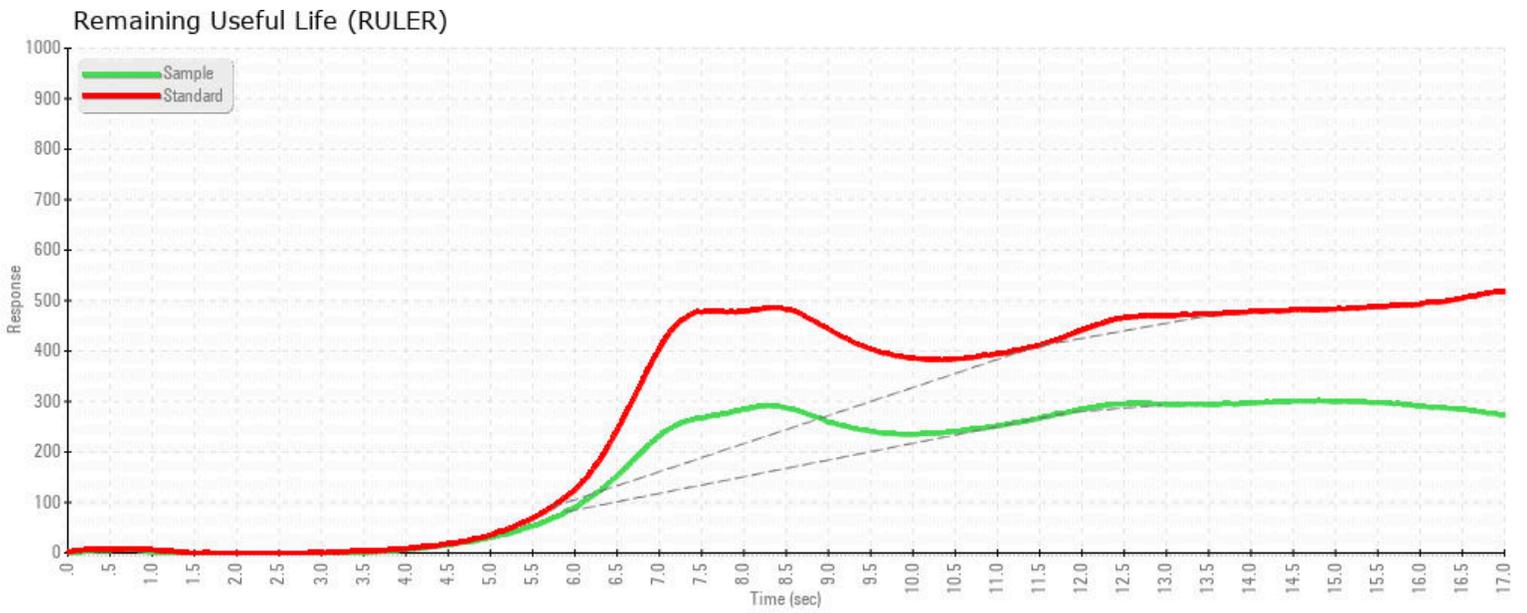
BALDWIN FILTERS INC
 4400 HIGHWAY 30 EAST
 KEARNEY, NE
 US 68847-0724
 Contact: JAY FAHRENBRUCH
 jay.fahrenbruch@parker.com
 T:

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)

F: (800)828-4453



MPC (Varnish Test)



Sample Color & Clarity



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