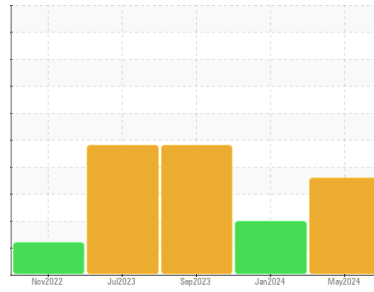




PROBLEM SUMMARY

Machine Id
24-018
 Component
Hydraulic System
 Fluid
BENZ OIL ULTRA GUARD 552 (500 GAL)

Sample Rating Trend

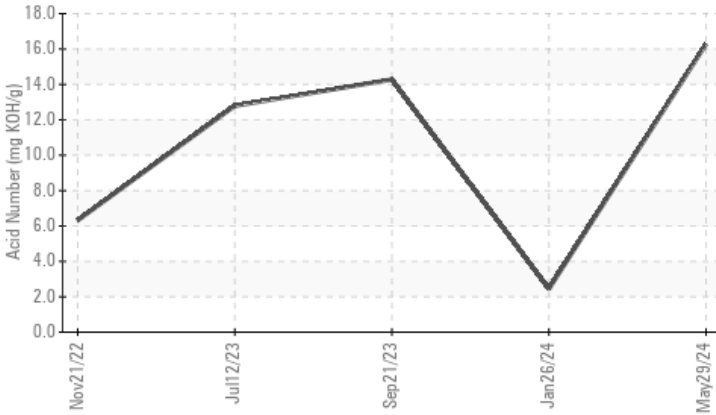


DEGRADATION

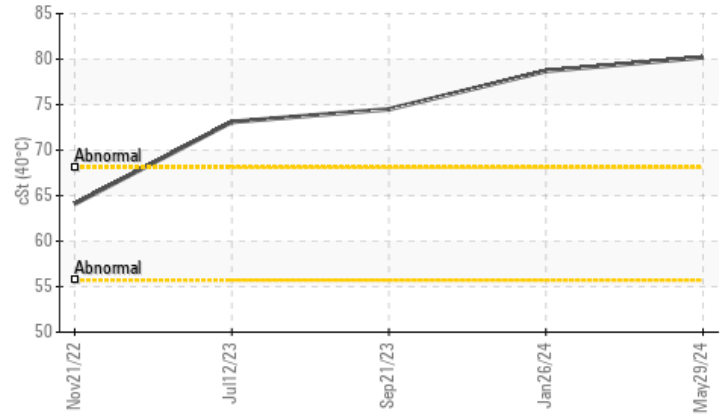


COMPONENT CONDITION SUMMARY

▲ Acid Number



▲ Viscosity @ 40°C



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	SEVERE
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 16.28	2.45	▲ 14.28
Visc @ 40°C	cSt	ASTM D445	▲ 80.2	▲ 78.7	▲ 74.5
PrtFilter					

Customer Id: DEELIN
 Sample No.: PH0000243
 Lab Number: 06208703
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

VISCOSITY



26 Jan 2024 Diag: Jonathan Hester

The filter change at the time of sampling has been noted. 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. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

[view report](#)



DEGRADATION



21 Sep 2023 Diag: Doug Bogart

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is above the recommended limit. The oil viscosity is higher than normal.

[view report](#)



DEGRADATION



12 Jul 2023 Diag: Jonathan Hester

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is above the recommended limit. The oil viscosity is higher than normal.

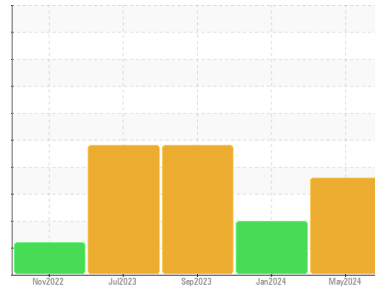
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id

24-018

Component

Hydraulic System

Fluid

BENZ OIL ULTRA GUARD 552 (500 GAL)

DIAGNOSIS

▲ Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

▲ Fluid Condition

The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PH0000243	PH0000244	PH0000346
Sample Date	Client Info		29 May 2024	26 Jan 2024	21 Sep 2023
Machine Age	hrs	Client Info	0	14164	0
Oil Age	hrs	Client Info	16132	14164	12124
Oil Changed	Client Info		Filtered	Filtered	Filtered
Sample Status			SEVERE	ABNORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	11	14	8
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	2	4	2
Tin	ppm	ASTM D5185m	>20	0	<1	<1
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		<1	3	0
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		0	1	<1
Calcium	ppm	ASTM D5185m		2	10	6
Phosphorus	ppm	ASTM D5185m		359	356	322
Zinc	ppm	ASTM D5185m		26	28	14
Sulfur	ppm	ASTM D5185m		1296	1171	1007

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	2	3	3
Sodium	ppm	ASTM D5185m		1	2	2
Potassium	ppm	ASTM D5185m	>20	0	0	<1

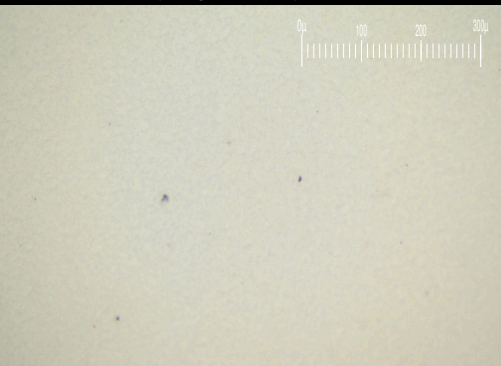
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	286	▲ 89364	▲ 20485
Particles >6µm	ASTM D7647	>320	96	▲ 7617	▲ 3498
Particles >14µm	ASTM D7647	>80	10	▲ 106	79
Particles >21µm	ASTM D7647	>20	4	18	14
Particles >38µm	ASTM D7647	>4	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>17/15/13	15/14/10	▲ 24/20/14	▲ 22/19/13

FLUID DEGRADATION

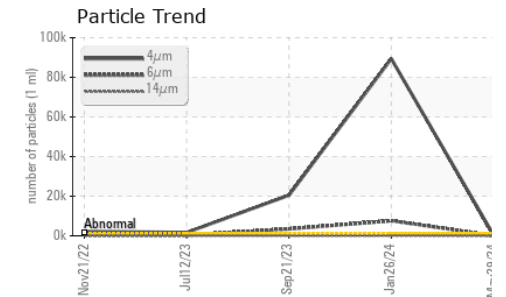
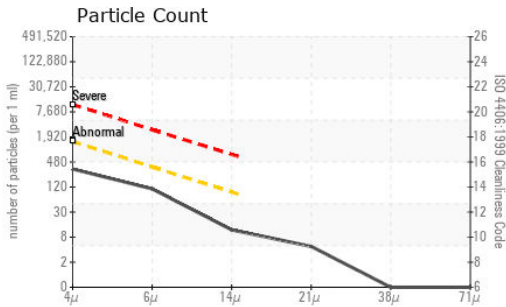
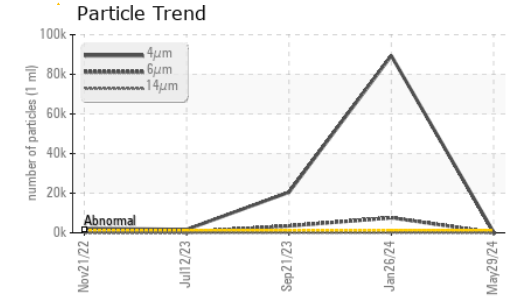
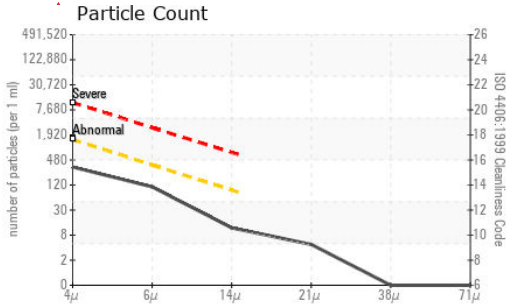
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 16.28	2.45	▲ 14.28

Particle Filter (Magn: 200 x)





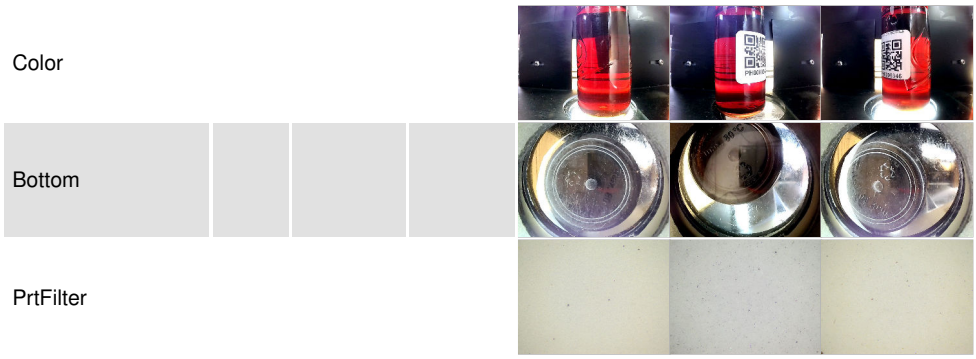
OIL ANALYSIS REPORT



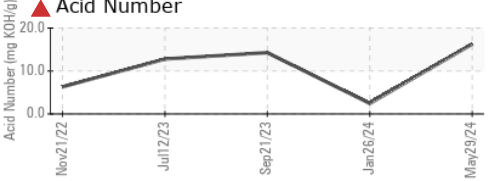
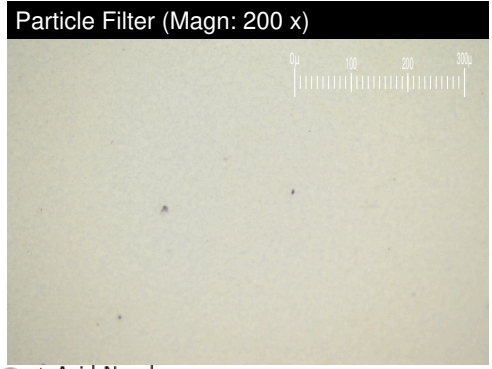
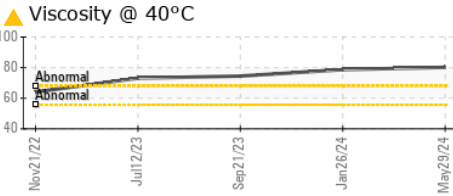
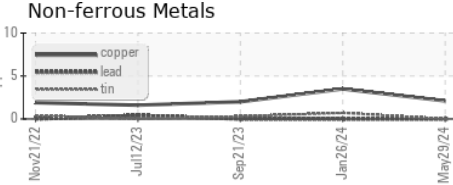
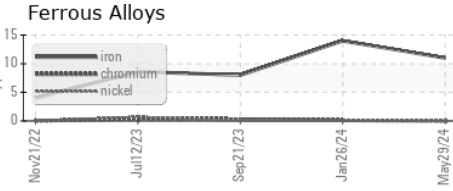
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	▲ 80.2	▲ 78.7	▲ 74.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0000243 **Received** : 13 Jun 2024
Lab Number : 06208703 **Tested** : 19 Jun 2024
Unique Number : 11076164 **Diagnosed** : 19 Jun 2024 - Jonathan Hester
Test Package : PLANT (Additional Tests : PrtFilter)

DEETER FOUNDRY
 5945 N 70TH ST
 LINCOLN, NE
 US 68507
 Contact: BRANDON KUHNKE
 brandon.kuhnke@groupnei.com
 T: (402)464-7466
 F:

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)