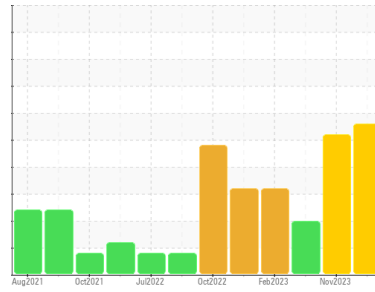




PROBLEM SUMMARY

Sample Rating Trend

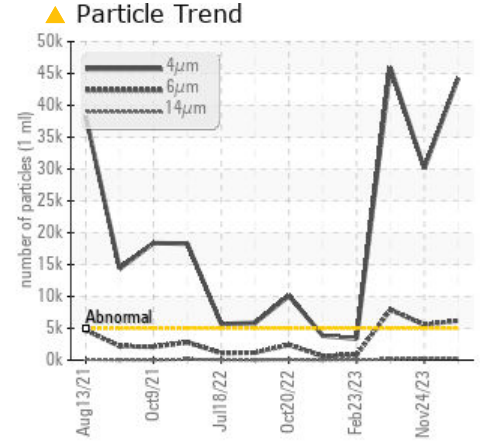
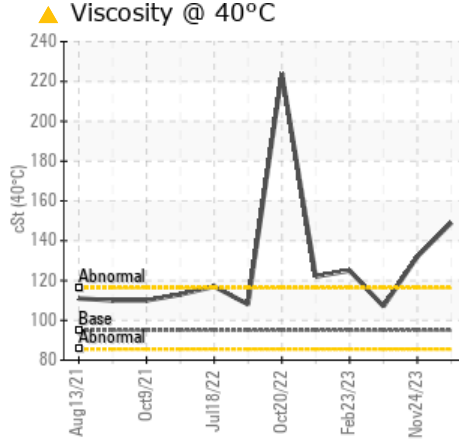
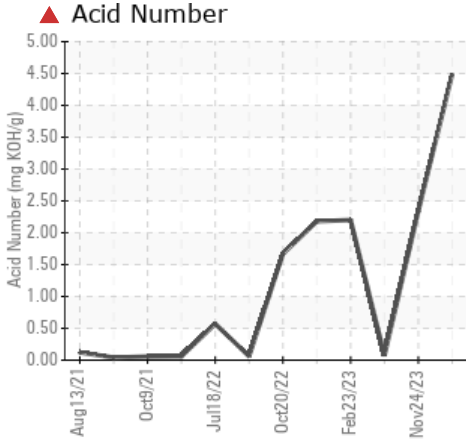


DEGRADATION



Area
VACUUM PUMP
 Machine Id
B68189 - BUSCH ROTARY VANE
 Component
Vacuum Pump
 Fluid
BUSCH R530S (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for a possible overheat condition. 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	SEVERE	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 44263	▲ 30099	▲ 45925
Particles >6µm	ASTM D7647	>1300	▲ 6187	▲ 5574	▲ 7913
Particles >14µm	ASTM D7647	>160	▲ 345	▲ 281	144
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 23/20/16	▲ 22/20/15	▲ 23/20/14
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 4.49	▲ 2.34	0.076
Visc @ 40°C	cSt	ASTM D445	95.0	132	107

Customer Id: PAPOMA
 Sample No.: WC0921366
 Lab Number: 06195371
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Angela Borella +1 800-237-1369
angela.borella@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.
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

DEGRADATION



24 Nov 2023 Diag: Don Baldrige

We advise that you check for a possible overheat condition. 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 particulates present in the oil. The AN level is above the recommended limit.

view report



CONTAMINANT



26 May 2023 Diag: Don Baldrige

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Appearance is layered. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



DEGRADATION



23 Feb 2023 Diag: Don Baldrige

We advise that you check for a possible overheat condition. 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. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit.

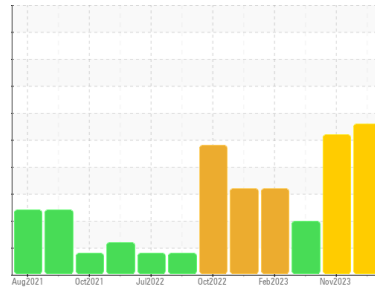
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Area

VACUUM PUMP

Machine Id

B68189 - BUSCH ROTARY VANE

Component

Vacuum Pump

Fluid

BUSCH R530S (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check for a possible overheat condition. 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 a high amount of particulates present in the oil.

▲ Fluid Condition

The AN level is above the recommended limit.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0921366	WC0872417	WC0781480
Sample Date	Client Info		21 May 2024	24 Nov 2023	26 May 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			SEVERE	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	6	0	<1
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	0	<1
Lead	ppm	ASTM D5185m >20	<1	0	0
Copper	ppm	ASTM D5185m >20	<1	0	0
Tin	ppm	ASTM D5185m >20	<1	0	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	2	1	0
Barium	ppm	ASTM D5185m	<1	0	2
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	<1	0	3
Calcium	ppm	ASTM D5185m	1	2	4
Phosphorus	ppm	ASTM D5185m	14	2	6
Zinc	ppm	ASTM D5185m	3	0	16
Sulfur	ppm	ASTM D5185m	196	42	43

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	8	8	9
Sodium	ppm	ASTM D5185m	6	7	<1
Potassium	ppm	ASTM D5185m >20	1	0	<1

FLUID CLEANLINESS

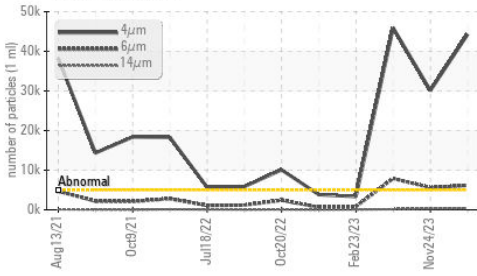
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 44263	▲ 30099	▲ 45925
Particles >6µm	ASTM D7647	>1300	▲ 6187	▲ 5574	▲ 7913
Particles >14µm	ASTM D7647	>160	▲ 345	▲ 281	144
Particles >21µm	ASTM D7647	>40	● 75	▲ 74	17
Particles >38µm	ASTM D7647	>10	2	4	3
Particles >71µm	ASTM D7647	>3	0	1	2
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 23/20/16	▲ 22/20/15	▲ 23/20/14

FLUID DEGRADATION

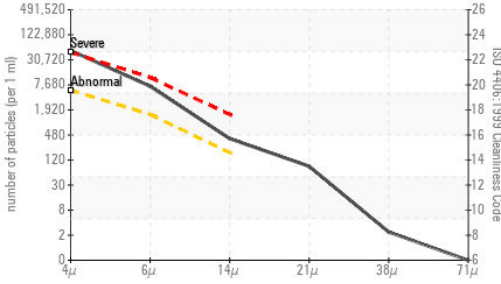
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 4.49	▲ 2.34	0.076

OIL ANALYSIS REPORT

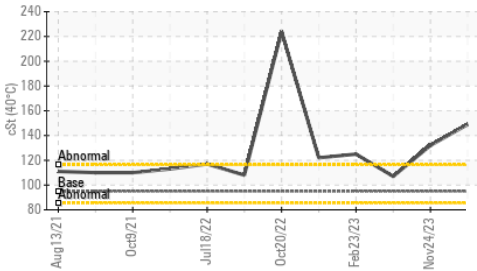
▲ Particle Trend



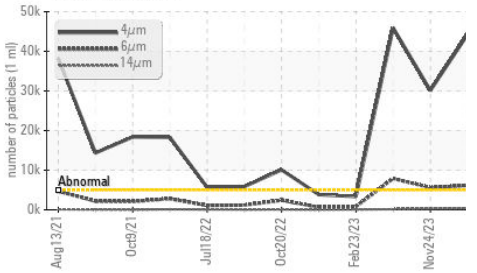
▲ Particle Count



▲ Viscosity @ 40°C



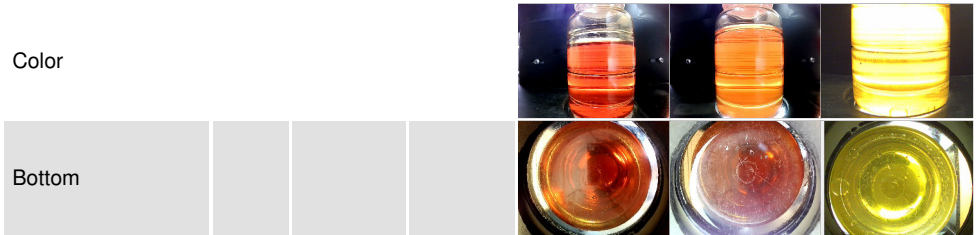
▲ Particle Trend



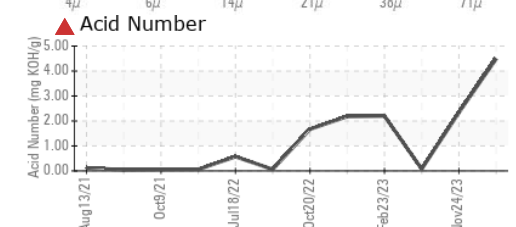
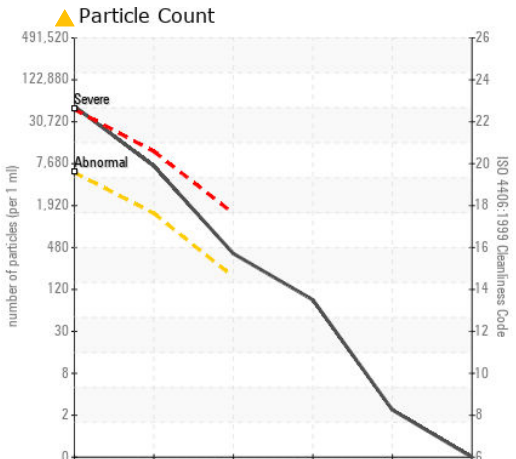
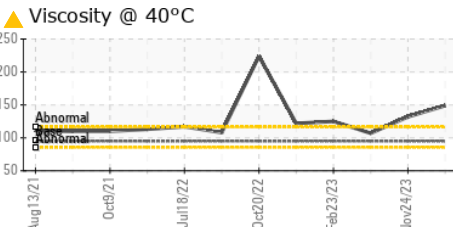
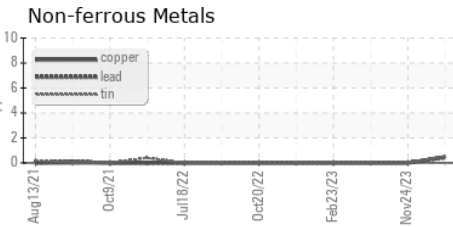
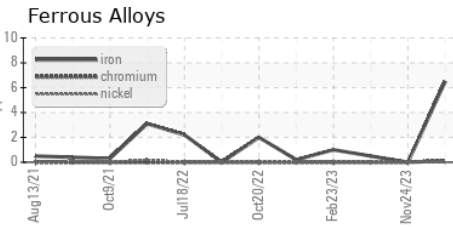
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	LAYRD
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	95.0 ▲ 149	132	107

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0921366 **Received** : 30 May 2024
Lab Number : 06195371 **Tested** : 31 May 2024
Unique Number : 11057494 **Diagnosed** : 31 May 2024 - Angela Borella
Test Package : IND 2 (Additional Tests: PrtCount)

PAPILLION FOODS
 10808 S 132ND ST
 OMAHA, NE
 US 68138
 Contact: NEIL ARIANO
 njariano@hormel.com

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)