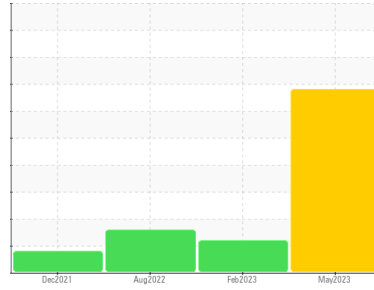




PROBLEM SUMMARY

Area
VACUUM PUMP
 Machine Id
B68184 - VACUUM PUMP ROTARY VANE
 Component
Vacuum Pump
 Fluid
BUSCH R530S (--- GAL)

Sample Rating Trend

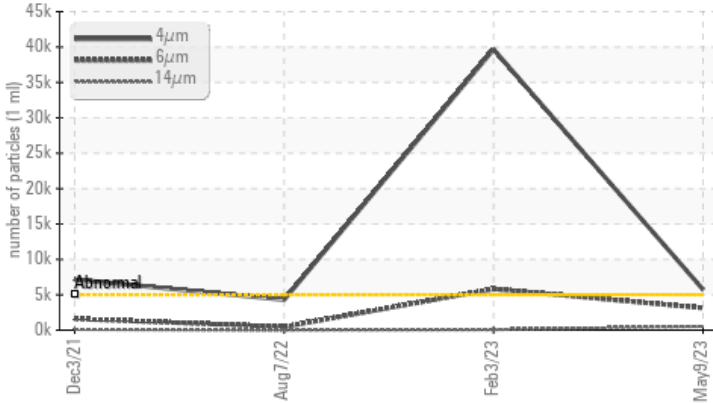


WATER

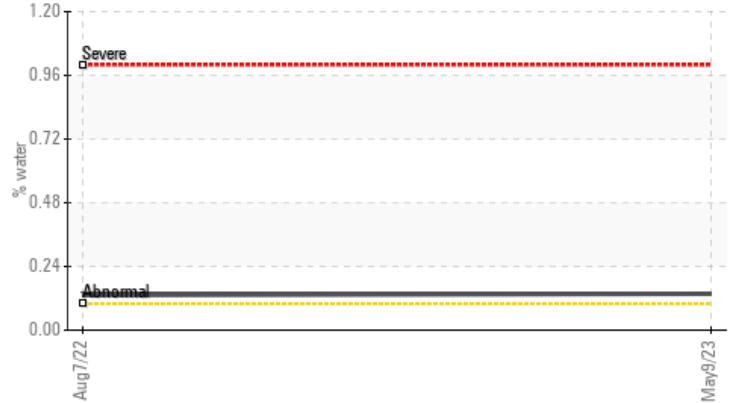


COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Water



RECOMMENDATION

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	MARGINAL
Water	%	ASTM D6304		▲ 0.137	---	▲ 0.132
ppm Water	ppm	ASTM D6304	>.1	▲ 1370	---	▲ 1320
Particles >4µm		ASTM D7647	>5000	▲ 5742	▲ 39669	4299
Particles >6µm		ASTM D7647	>1300	▲ 3128	▲ 5823	472
Particles >14µm		ASTM D7647	>160	▲ 532	72	16
Particles >21µm		ASTM D7647	>40	▲ 179	11	4
Particles >38µm		ASTM D7647	>10	▲ 28	0	1
Particles >71µm		ASTM D7647	>3	▲ 3	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/19/16	▲ 22/20/13	19/16/11
Appearance	scalar	*Visual	NORML	▲ HAZY	NORML	NORML
Emulsified Water	scalar	*Visual		▲ 0.2%	NEG	▲ 0.2%
Free Water	scalar	*Visual		▲ 10.0	NEG	NEG

Customer Id: PAPOMA
 Sample No.: WC0691453
 Lab Number: 05851817
 Test Package: IND 2



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

Action	Status	Date	Done By	Description
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.

HISTORICAL DIAGNOSIS

03 Feb 2023 Diag: Doug Bogart

ISO



Resample at the next service interval to monitor. 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 acceptable for this fluid. The condition of the oil is suitable for further service.

view report



07 Aug 2022 Diag: Doug Bogart

WATER



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



03 Dec 2021 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. 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 acceptable for this fluid. The condition of the oil is suitable for further service.

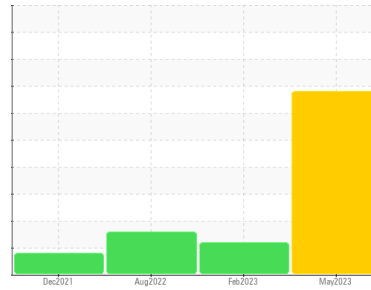
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
VACUUM PUMP
 Machine Id
B68184 - VACUUM PUMP ROTARY VANE
 Component
Vacuum Pump
 Fluid
BUSCH R530S (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil. Excessive free water present. There is a light concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0691453	WC0774960	WC0691571
Sample Date	Client Info		09 May 2023	03 Feb 2023	07 Aug 2022
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			ABNORMAL	ABNORMAL	MARGINAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	4	<1	0
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	0	<1
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	0	0	0
Tin	ppm	ASTM D5185m >20	<1	0	0
Antimony	ppm	ASTM D5185m	---	---	---
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	0	0	0
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	0
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m	1	2	0
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	58	27	26

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	0	10	6
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	<1	<1	0
Water	%	ASTM D6304	▲ 0.137	---	▲ 0.132
ppm Water	ppm	ASTM D6304 >.1	▲ 1370	---	▲ 1320

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 5742	▲ 39669	4299
Particles >6µm	ASTM D7647	>1300	▲ 3128	▲ 5823	472
Particles >14µm	ASTM D7647	>160	▲ 532	72	16
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Particles >38µm	ASTM D7647	>10	▲ 28	0	1
Particles >71µm	ASTM D7647	>3	▲ 3	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/19/16	▲ 22/20/13	19/16/11

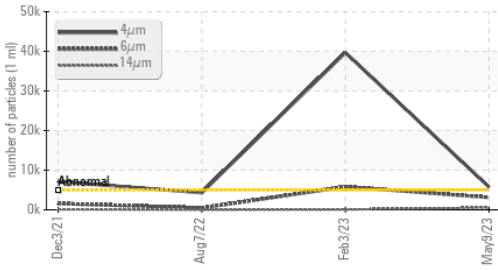
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.92	0.059	0.068

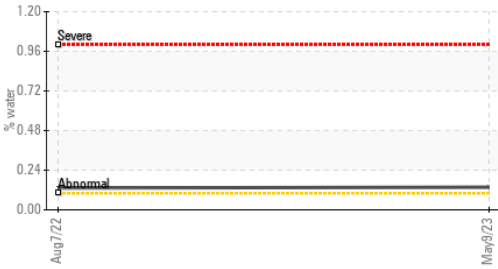


OIL ANALYSIS REPORT

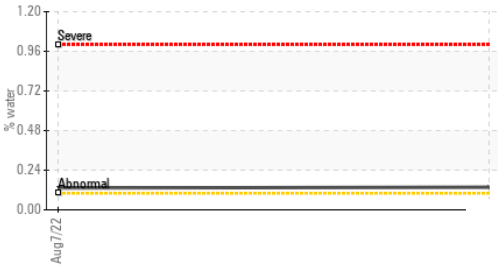
▲ Particle Trend



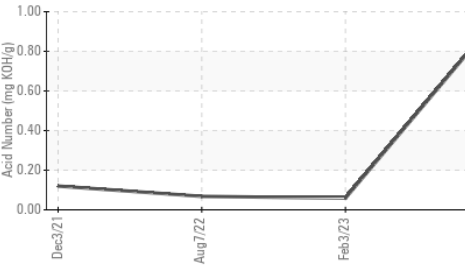
▲ Water



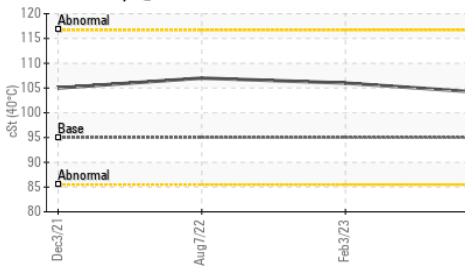
▲ Water



Acid Number



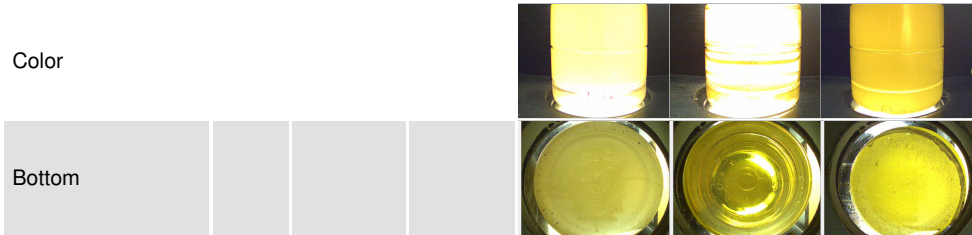
Viscosity @ 40°C



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	▲ HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	▲ 0.2%	NEG	▲ 0.2%
Free Water	scalar	*Visual	▲ 10.0	NEG	NEG

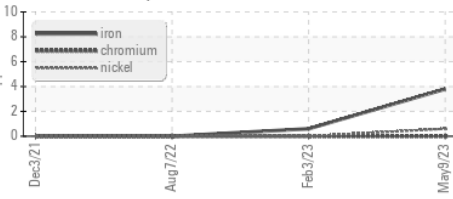
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	95.0	104	106	107

SAMPLE IMAGES	method	limit/base	current	history1	history2
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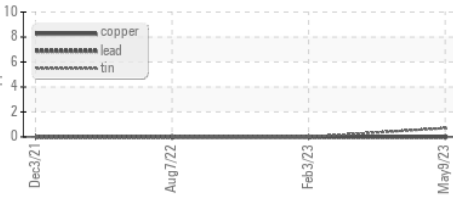


GRAPHS

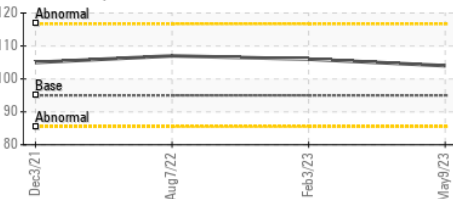
Ferrous Alloys



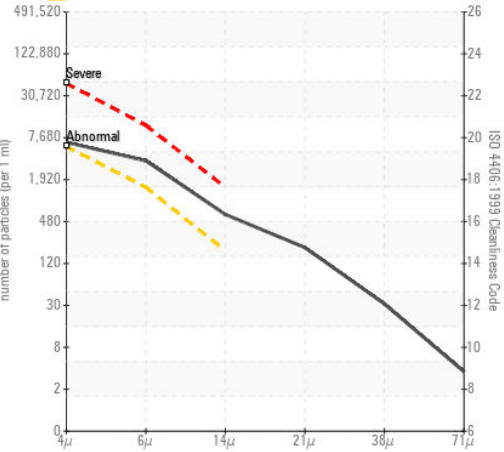
Non-ferrous Metals



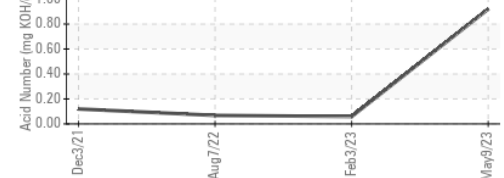
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0691453 **Received** : 19 May 2023
Lab Number : 05851817 **Diagnosed** : 22 May 2023
Unique Number : 10481172 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

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 Contact: NEIL ARIANO
 njariano@hormel.com

T:
F: