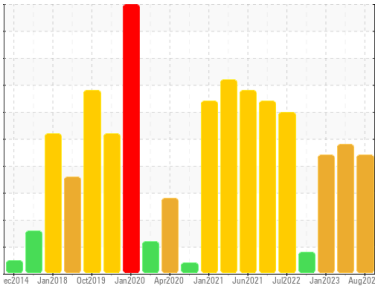
PROBLEM SUMMARY

Sample Rating Trend

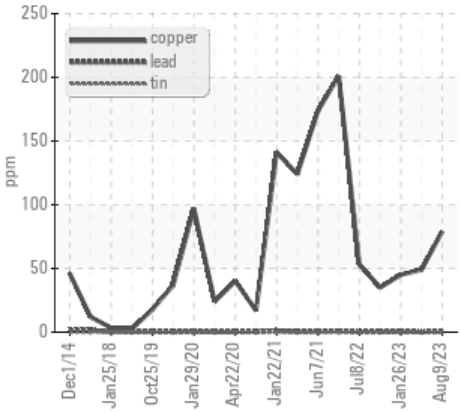


DIRT

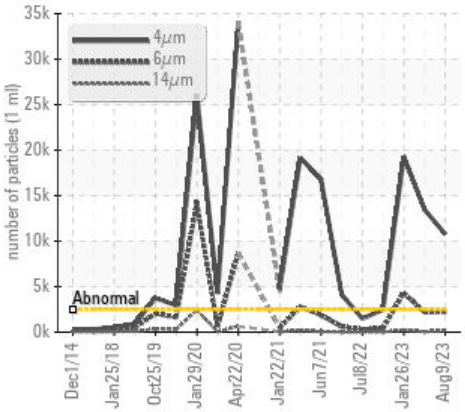
Machine Id
BT-F01-B2 (S/N B2 FRESH AIR BLOWER)
Component
Blower
Fluid
SHELL TELLUS S2 MX 100 (--- GAL)

COMPONENT CONDITION SUMMARY

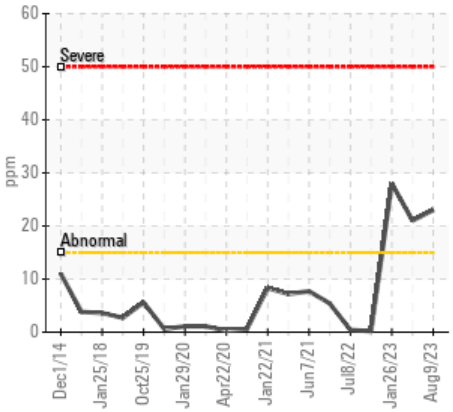
▲ Non-ferrous Metals



▲ Particle Trend



▲ Silicon (ppm)



RECOMMENDATION

Filter oil if possible using B6=75 filter media or better. No other action required at this time. Resample at next normal interval.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185m	>20	▲ **79**	▲ 49	▲ 45
Silicon	ppm	ASTM D5185m	>15	▲ **23**	▲ 21	▲ 28
Particles >4µm		ASTM D7647	>2500	▲ **10767**	▲ 13486	▲ 19293
Particles >6µm		ASTM D7647	>640	▲ **2250**	▲ 2184	▲ 4295
Particles >14µm		ASTM D7647	>80	▲ **167**	53	▲ 218
Particles >21µm		ASTM D7647	>20	▲ **42**	10	▲ 30
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **21/18/15**	▲ 21/18/13	▲ 21/19/15

Customer Id: MOMBAY
Sample No.: PLS0000478
Lab Number: 05925994
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Mike Johnson +1 (615)771-6030
mike.johnson@amrri.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

01 May 2023 Diag: Mike Johnson

DIRT

Filter oil if possible using B6=75 filter media or better. No other action required at this time. Resample at next normal interval.Copper wear particles are elevated. Determine source of copper wear, reviewing labyrinth seals and other common soft metal parts. Contamination is elevated, including some silicon indicators. Review seals and breathers. Filtration can help extend machine life. Fluid health indicators are acceptable for continued use.

view report

26 Jan 2023 Diag: Mike Johnson

DIRT

Filter oil if possible using B6=75 filter media or better. No other action recommended at this time. Resample at next normal interval.Copper levels are above normal. Investigate possible sources of wear. Particle contamination is substantially elevated from previous samples. Filtration can help extend machine life. Fluid health is acceptable for continued use provided that contamination is brought under control.

view report

25 Oct 2022 Diag: Mike Johnson

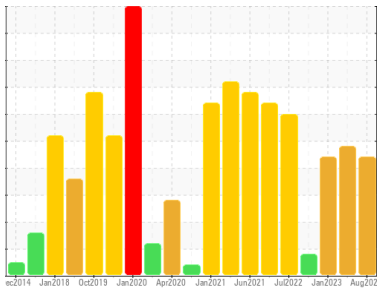
WEAR

Investigate potential sources of copper wear. If worn part is confirmed and fixed, consider changing oil to eliminate contamination. No other action required at this time. Resample at next normal interval.Copper particle count is higher than normal. Investigate possible sources of copper wear. Particle contamination is on par with new unfiltered oil. Consider filtering oil to extend machine life. Fluid health is acceptable for continued use.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
BT-F01-B2 (S/N B2 FRESH AIR BLOWER)
Component
Blower
Fluid
SHELL TELLUS S2 MX 100 (--- GAL)

DIAGNOSIS

Recommendation
Filter oil if possible using B6=75 filter media or better. No other action required at this time. Resample at next normal interval.

Wear
Copper wear particles are elevated. Determine source of copper wear, reviewing labyrinth seals and other common soft metal parts.

Contamination
Contamination is elevated, including some silicon indicators. Review seals and breathers. Filtration can help extend machine life.

Fluid Condition
Fluid health indicators are acceptable for continued use.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PLS0000478**	PLS0000712	PLS0000640
Sample Date		Client Info		**09 Aug 2023**	01 May 2023	26 Jan 2023
Machine Age	mths	Client Info		**0**	0	3
Oil Age	mths	Client Info		**0**	6	0
Oil Changed		Client Info		**N/A**	Not Changd	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**13**	11	7
Iron	ppm	ASTM D5185m	>20	**2**	1	2
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**<1**	0	<1
Copper	ppm	ASTM D5185m	>20	▲ **79**	▲ 49	▲ 45
Tin	ppm	ASTM D5185m	>20	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**60**	57	57
Calcium	ppm	ASTM D5185m		**6**	<1	6
Phosphorus	ppm	ASTM D5185m		**308**	311	319
Zinc	ppm	ASTM D5185m		**331**	323	314
Sulfur	ppm	ASTM D5185m		**977**	1162	807

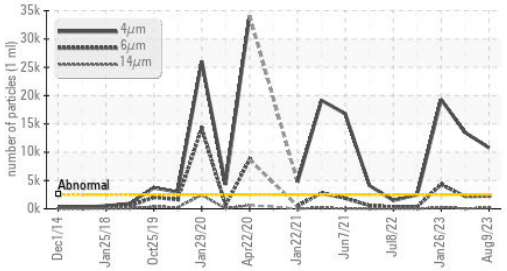
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **23**	▲ 21	▲ 28
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624		**2.0**	2.0	2.3
Sulfation	Abs/.1mm	*ASTM D7415		**13.6**	14.6	15.1

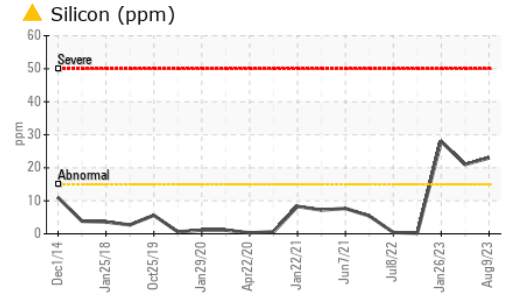
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **10767**	▲ 13486	▲ 19293
Particles >6µm		ASTM D7647	>640	▲ **2250**	▲ 2184	▲ 4295
Particles >14µm		ASTM D7647	>80	▲ **167**	53	▲ 218
Particles >21µm		ASTM D7647	>20	▲ **42**	10	▲ 30
Particles >38µm		ASTM D7647	>4	**1**	1	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **21/18/15**	▲ 21/18/13	▲ 21/19/15

OIL ANALYSIS REPORT

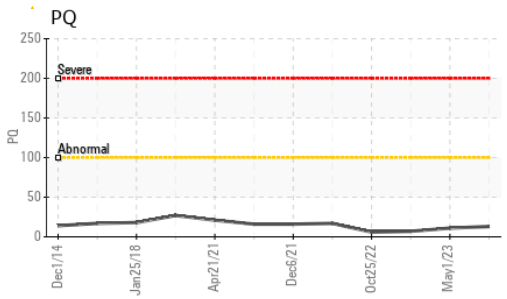
Particle Trend



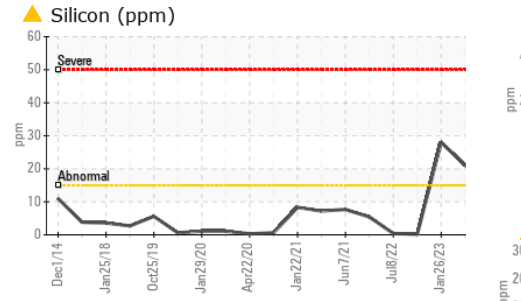
Silicon (ppm)



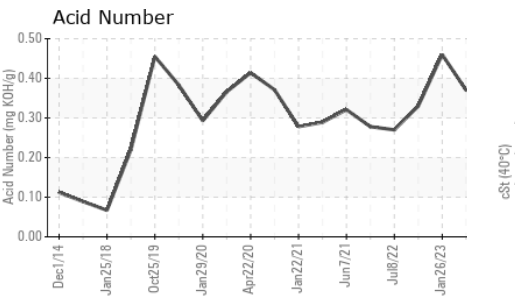
PQ



Silicon (ppm)



Acid Number

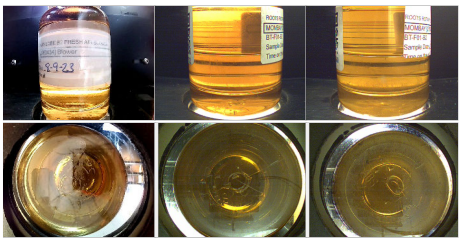


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**7.7**	8.6	9.6
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.38**	0.37	0.46

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	▲ LIGHT	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	**LIGHT**	NONE	LIGHT
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		**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

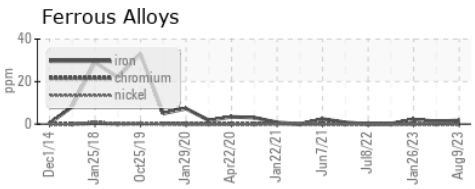
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	**98.1**	98.0	98.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

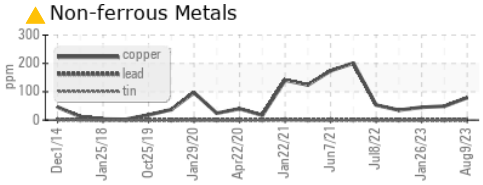


GRAPHS

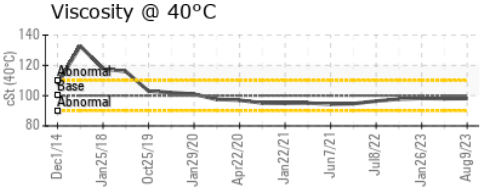
Ferrous Alloys



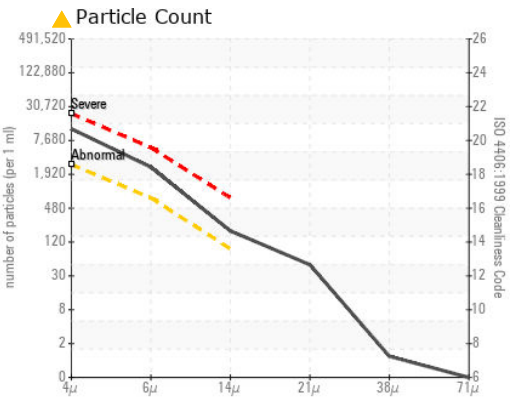
Non-ferrous Metals



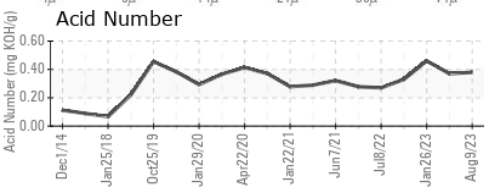
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000478 **Received** : 16 Aug 2023
Lab Number : 05925994 **Diagnosed** : 23 Aug 2023
Unique Number : 10605941 **Diagnostician** : Mike Johnson
Test Package : PLANT (Additional Tests: FT-IR)

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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