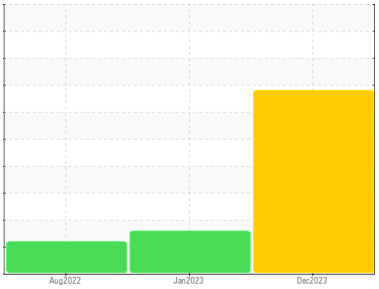
PROBLEM SUMMARY

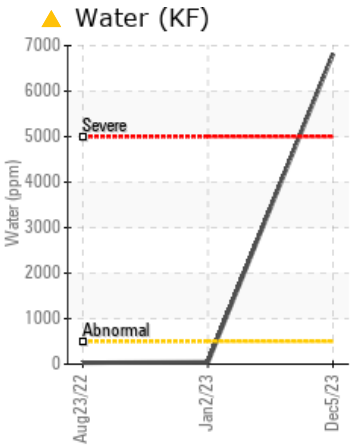
Sample Rating Trend

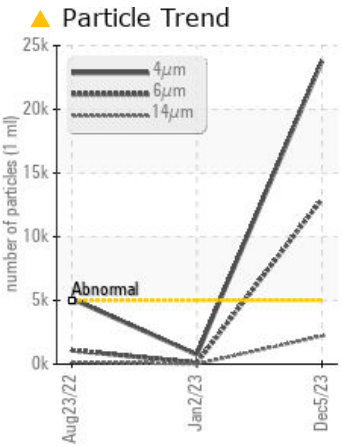


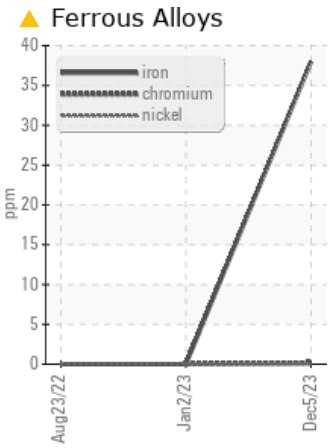
WATER

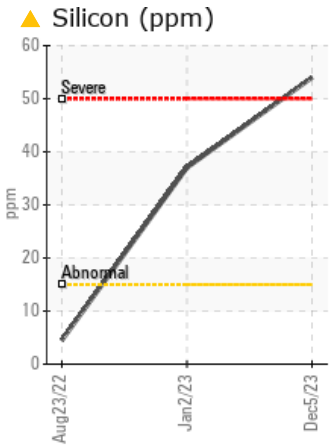
Area
Thermoforming
Machine Id
Line 12 (B) Slide Valve Hydraulic (S/N N/A)
Component
Hydraulic System
Fluid
SUMMIT HYPAR FG-32 (--- GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>20	▲ **38**	0	0
Silicon	ppm	ASTM D5185m	>15	▲ **54**	▲ 37	4
Water	%	ASTM D6304	>0.05	▲ **0.682**	0.004	0.003
ppm Water	ppm	ASTM D6304	>500	▲ **6820**	42.8	31.1
Particles >4µm		ASTM D7647	>5000	▲ **23776**	751	▲ 5132
Particles >6µm		ASTM D7647	>1300	▲ **12952**	102	1089
Particles >14µm		ASTM D7647	>160	▲ **2204**	11	155
Particles >21µm		ASTM D7647	>40	▲ **743**	3	▲ 71
Particles >38µm		ASTM D7647	>10	▲ **115**	0	8
Particles >71µm		ASTM D7647	>3	▲ **12**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/21/18**	17/14/11	▲ 20/17/14
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	NEG

Customer Id: DARDALTX
Sample No.: TO50001935
Lab Number: 06029356
Test Package: IND 2

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
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

02 Jan 2023 Diag: Jonathan Hester

DIRT

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Elemental level of silicon (Si) above normal. 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

23 Aug 2022 Diag: Don Baldridge

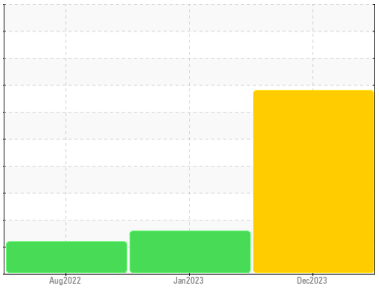
ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is a moderate amount of particulates 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
Thermoforming
Machine Id
Line 12 (B) Slide Valve Hydraulic (S/N N/A)
Component
Hydraulic System
Fluid
SUMMIT HYPAR FG-32 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO50001935**	TO50001453	TO50001125
Sample Date		Client Info		**05 Dec 2023**	02 Jan 2023	23 Aug 2022
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				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ **38**	0	0
Chromium	ppm	ASTM D5185m	>20	**<1**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**1**	0	<1
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	2	2
Tin	ppm	ASTM D5185m	>20	**0**	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		**0**	0	0
Barium	ppm	ASTM D5185m		**3**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**<1**	<1	0
Calcium	ppm	ASTM D5185m		**<1**	120	101
Phosphorus	ppm	ASTM D5185m		**418**	427	358
Zinc	ppm	ASTM D5185m		**0**	355	311
Sulfur	ppm	ASTM D5185m		**134**	2493	1906

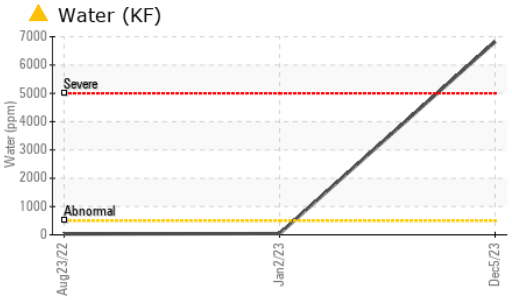
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **54**	▲ 37	4
Sodium	ppm	ASTM D5185m		**<1**	0	2
Potassium	ppm	ASTM D5185m	>20	**1**	2	0
Water	%	ASTM D6304	>0.05	▲ **0.682**	0.004	0.003
ppm Water	ppm	ASTM D6304	>500	▲ **6820**	42.8	31.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **23776**	751	▲ 5132
Particles >6µm		ASTM D7647	>1300	▲ **12952**	102	1089
Particles >14µm		ASTM D7647	>160	▲ **2204**	11	155
Particles >21µm		ASTM D7647	>40	▲ **743**	3	▲ 71
Particles >38µm		ASTM D7647	>10	▲ **115**	0	8
Particles >71µm		ASTM D7647	>3	▲ **12**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/21/18**	17/14/11	▲ 20/17/14

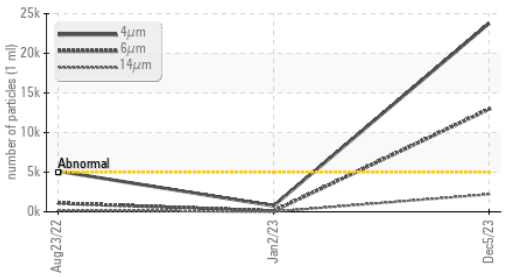
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.40**	0.37	0.668

OIL ANALYSIS REPORT

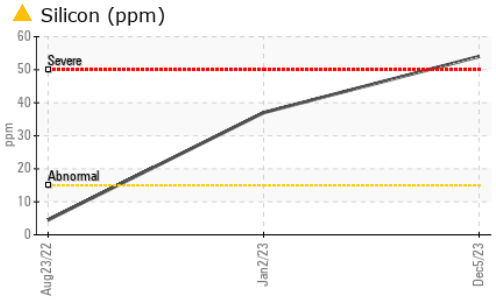
Water (KF)



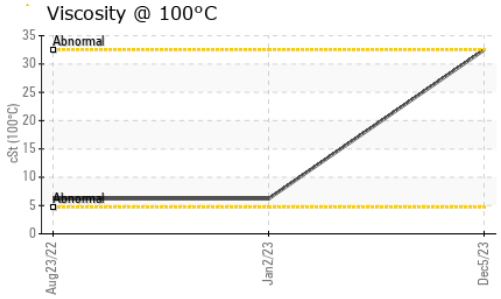
Particle Trend



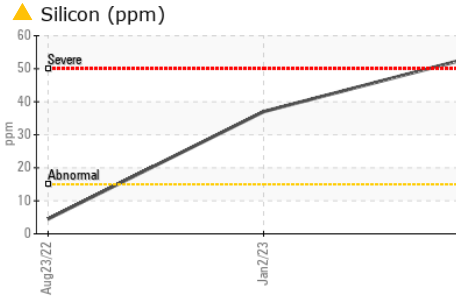
Silicon (ppm)



Viscosity @ 100°C



Silicon (ppm)



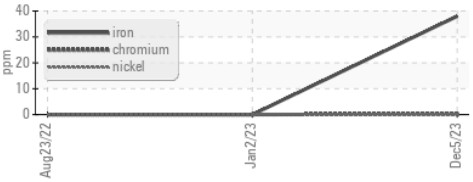
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**333**	36.1	35.2
Visc @ 100°C	cSt	ASTM D445		**32.5**	6.2	6.2
Viscosity Index (VI)	Scale	ASTM D2270		**137**	120	125

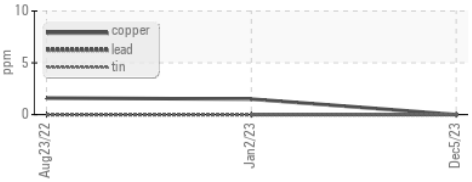
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

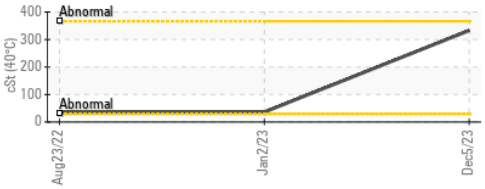
Ferrous Alloys



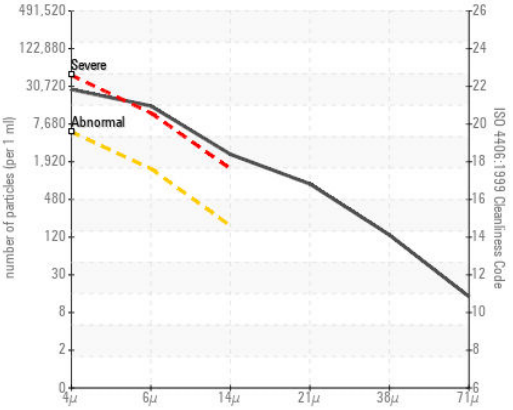
Non-ferrous Metals



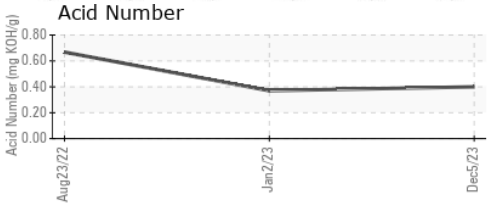
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001935 **Recieved** : 08 Dec 2023
Lab Number : 06029356 **Diagnosed** : 15 Dec 2023
Unique Number : 10779147 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

Certificate L2367

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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