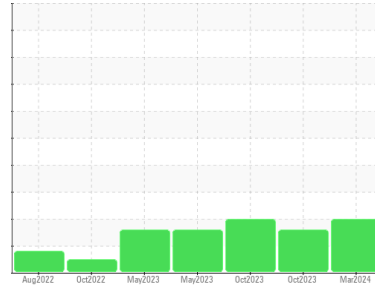




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
{UNASSIGNED}
 Machine Id
MARGPB-1 (S/N 97-503)

Component
Hydraulic Power Pack
 Fluid
LUBCON THERMO FLUID HLP 46 (275 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. (Customer Sample Comment: VI please. Lubcon Thurmofluid HLP 46. 4 1/2 drums kidney filter to better than 15/13/10. Transferred to reservoir with approximately 30 gallons residu6in valves, hoses, cylinders etc.)

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 acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0782791	WC0782759	WC0782758
Sample Date	Client Info		17 Mar 2024	09 Oct 2023	07 Oct 2023
Machine Age	hrs	Client Info	146705	151246	151224
Oil Age	hrs	Client Info	0	12969	12947
Oil Changed	Client Info		Filtered	Filtered	N/A
Sample Status			ABNORMAL	ATTENTION	ABNORMAL

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	0	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	0
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	2	8	8
Tin	ppm	ASTM D5185m	>20	<1	<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		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	2	2
Calcium	ppm	ASTM D5185m		49	61	61
Phosphorus	ppm	ASTM D5185m		334	329	329
Zinc	ppm	ASTM D5185m		432	422	422
Sulfur	ppm	ASTM D5185m		949	868	868

CONTAMINANTS

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

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>320	▲ 2782	● 379	▲ 3104
Particles >6µm	ASTM D7647	>80	▲ 497	● 116	▲ 768
Particles >14µm	ASTM D7647	>10	▲ 49	● 12	▲ 50
Particles >21µm	ASTM D7647	>3	▲ 10	● 3	▲ 12
Particles >38µm	ASTM D7647	>3	0	● 0	▲ 1
Particles >71µm	ASTM D7647	>3	0	● 0	▲ 0
Oil Cleanliness	ISO 4406 (c)	>15/13/10	▲ 19/16/13	● 16/14/11	▲ 19/17/13

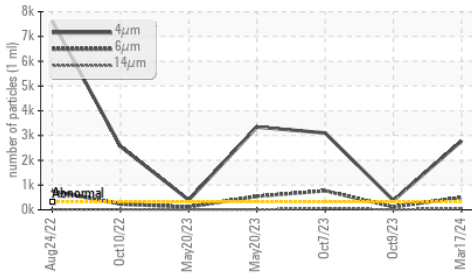
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.35	0.23	0.22

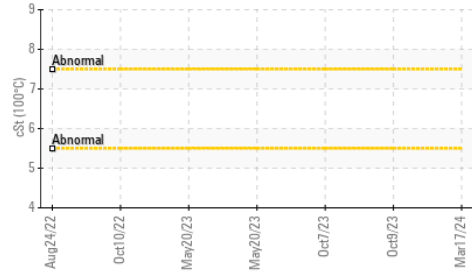


OIL ANALYSIS REPORT

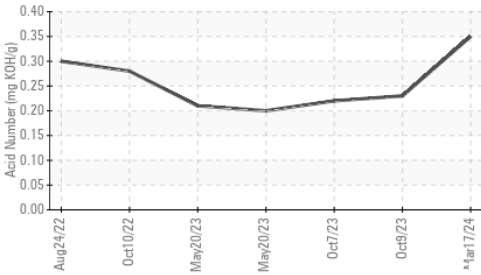
▲ Particle Trend



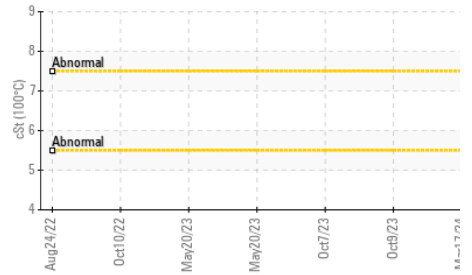
Viscosity @ 100°C



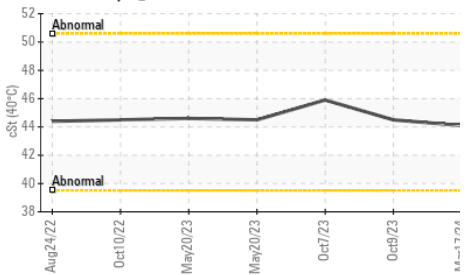
Acid Number



Viscosity @ 100°C



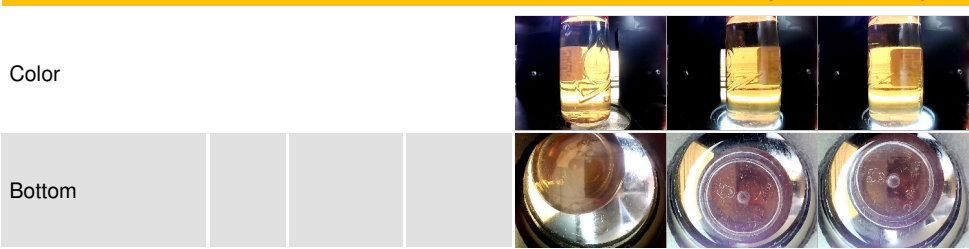
Viscosity @ 40°C



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	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

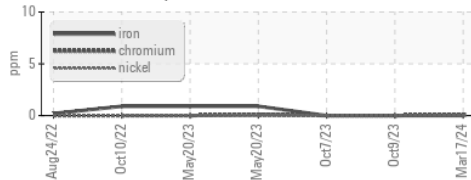
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	44.1	44.5	45.9
Visc @ 100°C	cSt	ASTM D445	7.55	---	---
Viscosity Index (VI)	Scale	ASTM D2270	138	---	---

SAMPLE IMAGES

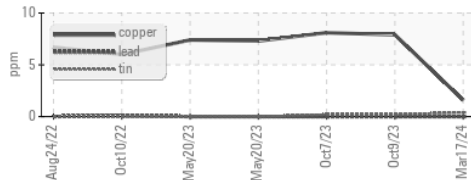


GRAPHS

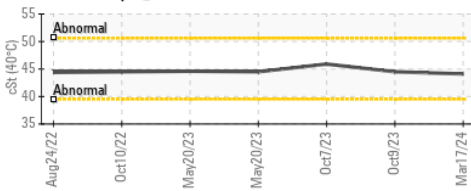
Ferrous Alloys



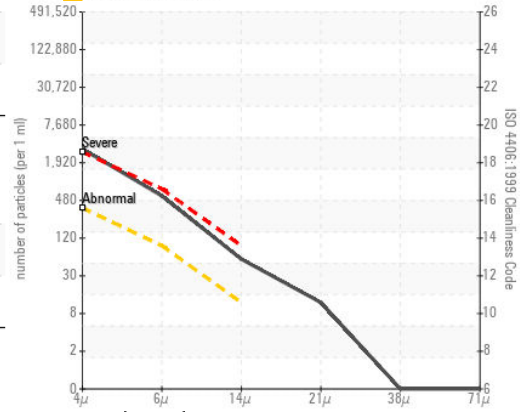
Non-ferrous Metals



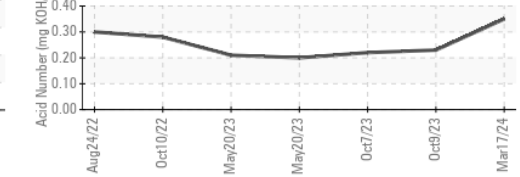
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0782791 **Received** : 21 Mar 2024
Lab Number : 06124904 **Tested** : 27 Mar 2024
Unique Number : 10939055 **Diagnosed** : 27 Mar 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KV100, VI)

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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