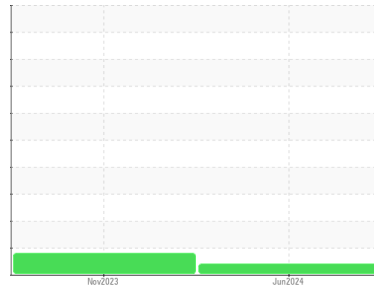




OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id
HT-502 (S/N J030592)
 Component
Refrigeration Compressor
 Fluid
M & M 717 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris 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		USP0013039	USP0003854	---
Sample Date	Client Info		17 Jun 2024	27 Nov 2023	---
Machine Age	hrs	Client Info	25618	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	ATTENTION	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	14	5	---
Chromium	ppm	ASTM D5185m >2	<1	<1	---
Nickel	ppm	ASTM D5185m	0	<1	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >3	0	<1	---
Lead	ppm	ASTM D5185m >2	0	<1	---
Copper	ppm	ASTM D5185m >8	0	<1	---
Tin	ppm	ASTM D5185m >4	0	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	---
Barium	ppm	ASTM D5185m	0	<1	---
Molybdenum	ppm	ASTM D5185m	0	<1	---
Manganese	ppm	ASTM D5185m	0	<1	---
Magnesium	ppm	ASTM D5185m	0	0	---
Calcium	ppm	ASTM D5185m	0	0	---
Phosphorus	ppm	ASTM D5185m	0	0	---
Zinc	ppm	ASTM D5185m	2	0	---
Sulfur	ppm	ASTM D5185m	0	0	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	0	<1	---
Sodium	ppm	ASTM D5185m	0	0	---
Potassium	ppm	ASTM D5185m >20	1	<1	---
Water	%	ASTM D6304 >0.01	0.001	0.001	---
ppm Water	ppm	ASTM D6304 >100	13	11	---

FLUID CLEANLINESS

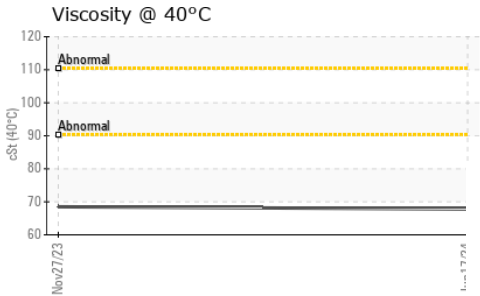
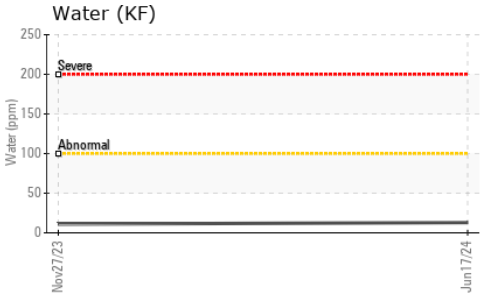
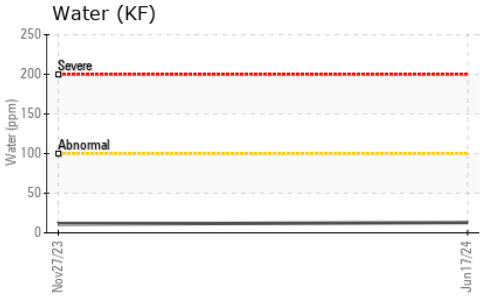
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	---	● 13490	---
Particles >6µm	ASTM D7647	>2500	---	● 1744	---
Particles >14µm	ASTM D7647	>320	---	● 20	---
Particles >21µm	ASTM D7647	>80	---	● 5	---
Particles >38µm	ASTM D7647	>20	---	● 0	---
Particles >71µm	ASTM D7647	>4	---	● 0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	---	● 21/18/11	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.014	0.015	---



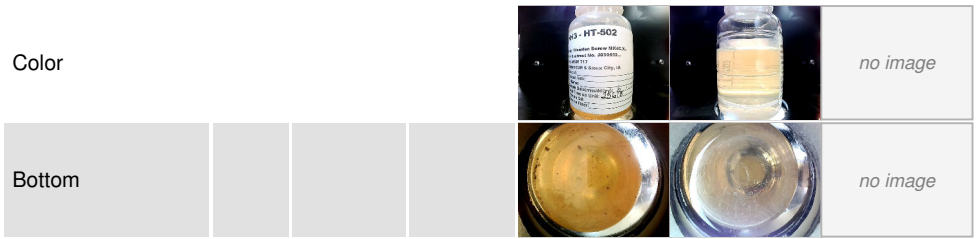
OIL ANALYSIS REPORT



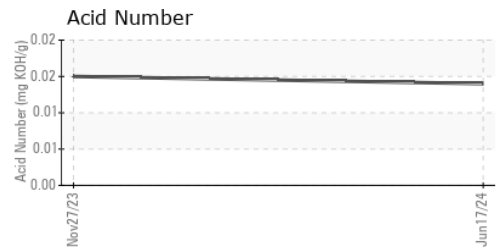
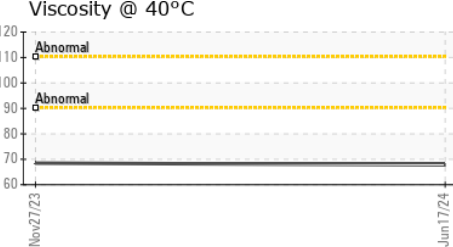
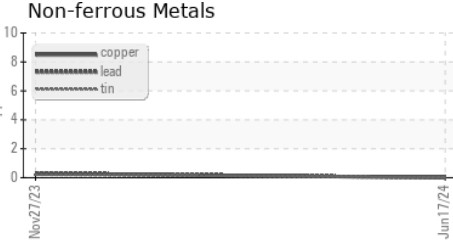
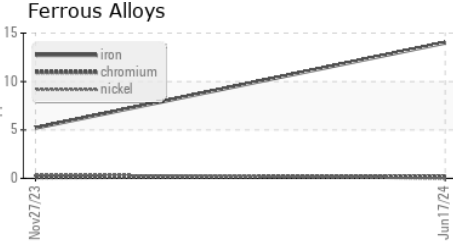
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.01	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.8	68.5	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0013039 **Received** : 26 Jun 2024
Lab Number : **06221285** **Tested** : 27 Jun 2024
Unique Number : 11099482 **Diagnosed** : 27 Jun 2024 - Doug Bogart
Test Package : IND 2

SMITHFIELD - SIOUX CITY
 1000 CUNNINGHAM DR
 SIOUX CITY, IA
 US 51106
 Contact: D PEARSON

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)