OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Machine Id
QX WATER CHILLER (NORTH PLANT)
Component
Gearbox
Fluid
JAX SYNGEAR INDUSTRIAL GEAR ISO 320 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The oil viscosity is higher than normal. Confirmed. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0012368**	USP0002891	---
Sample Date		Client Info		**15 Jul 2024**	29 Oct 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**4**	3	---
Chromium	ppm	ASTM D5185m	>15	**0**	0	---
Nickel	ppm	ASTM D5185m	>15	**0**	0	---
Titanium	ppm	ASTM D5185m		**0**	<1	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>25	**<1**	1	---
Lead	ppm	ASTM D5185m	>100	**0**	0	---
Copper	ppm	ASTM D5185m	>200	**0**	0	---
Tin	ppm	ASTM D5185m	>25	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	11	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	0	---
Manganese	ppm	ASTM D5185m		**0**	0	---
Magnesium	ppm	ASTM D5185m		**2**	<1	---
Calcium	ppm	ASTM D5185m		**276**	234	---
Phosphorus	ppm	ASTM D5185m		**796**	670	---
Zinc	ppm	ASTM D5185m		**0**	0	---
Sulfur	ppm	ASTM D5185m		**579**	597	---

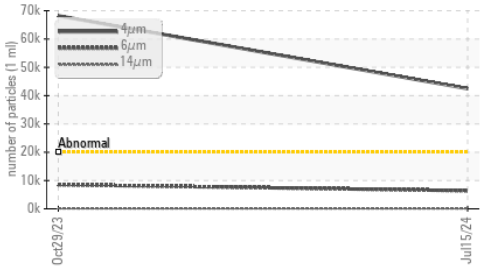
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**5**	4	---
Sodium	ppm	ASTM D5185m		**2**	<1	---
Potassium	ppm	ASTM D5185m	>20	**0**	1	---
Water	%	ASTM D6304	>0.2	**0.009**	0.013	---
ppm Water	ppm	ASTM D6304	>2000	**91**	131.4	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **42457**	▲ 68210	---
Particles >6µm		ASTM D7647	>5000	● **6395**	● 8533	---
Particles >14µm		ASTM D7647	>640	**123**	146	---
Particles >21µm		ASTM D7647	>160	**22**	29	---
Particles >38µm		ASTM D7647	>40	**1**	2	---
Particles >71µm		ASTM D7647	>10	**0**	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/20/14**	▲ 23/20/14	---

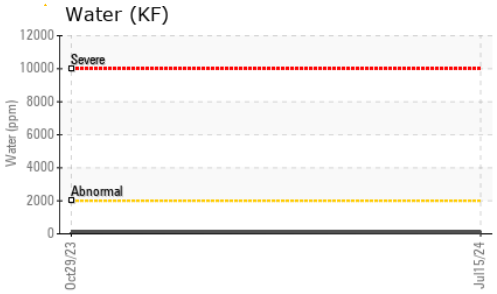
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.72**	0.69	---

OIL ANALYSIS REPORT

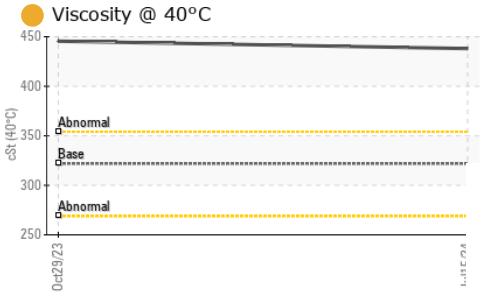
Particle Trend



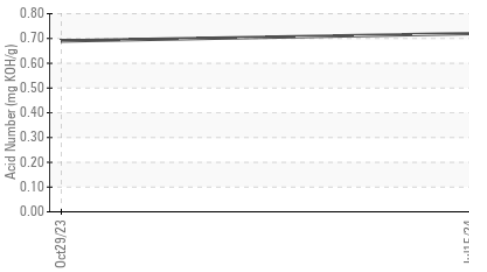
Water (KF)



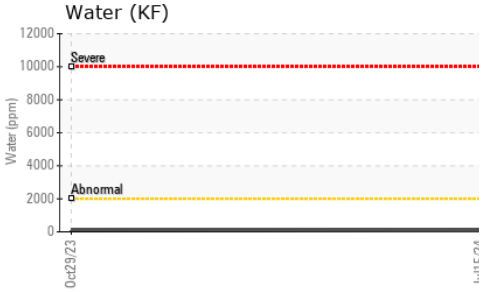
Viscosity @ 40°C



Acid Number



Water (KF)



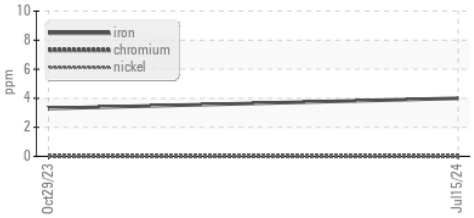
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	321.9	**438**	445.5	---

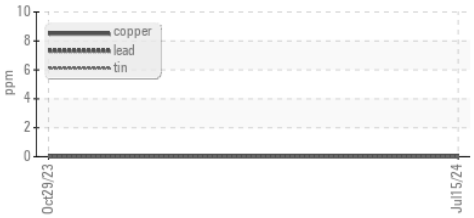
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS

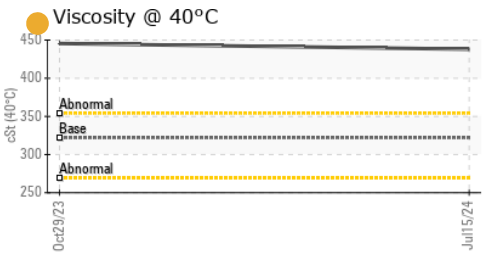
Ferrous Alloys



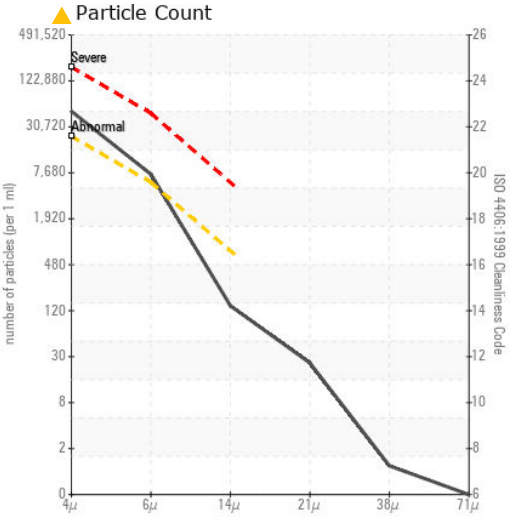
Non-ferrous Metals



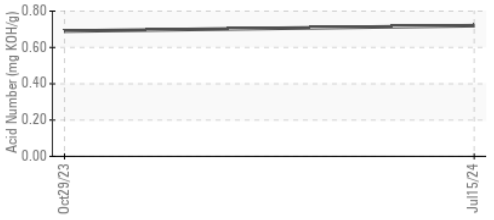
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0012368
Lab Number : 06237833
Unique Number : 11126667
Test Package : IND 2

Received : 16 Jul 2024
Tested : 18 Jul 2024
Diagnosed : 18 Jul 2024 - Doug Bogart

TYSON HILLSHIRE - SAINT JOSEPH
5807 MITCHELL AVE
SAINT JOSEPH, MO
US 64507
Contact:
T:
F:

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)