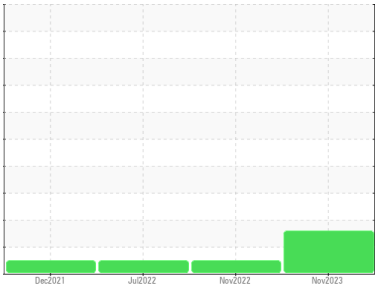
PROBLEM SUMMARY

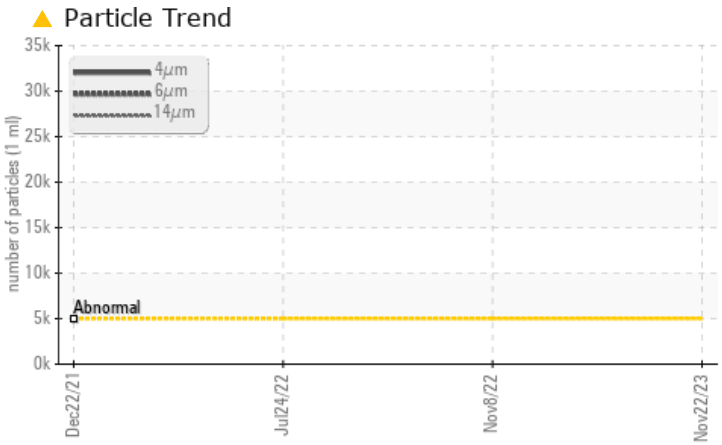
Sample Rating Trend

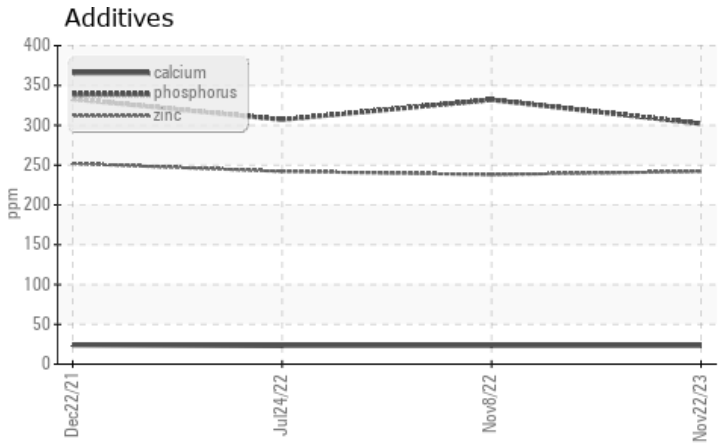


ISO

Area
Vessel
Machine Id
KAT 02 (AUTOFREEZERS)
Component
Hydraulic System
Fluid
SHELL TELLUS S4 VX 32 (500 LTR)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Particles >4µm		ASTM D7647	>5000	▲ **31577**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **4793**	---	---
Particles >14µm		ASTM D7647	>160	▲ **162**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/19/15**	---	---

Customer Id: KATSHESH
Sample No.: PC0080311
Lab Number: 02601826
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

08 Nov 2022 Diag: Kevin Marson

NORMAL

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.All component wear rates are normal. There is no indication of any contamination in the component(unconfirmed). Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

view report

24 Jul 2022 Diag: Kevin Marson

NORMAL

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.All component wear rates are normal. There is no indication of any contamination in the component(unconfirmed). Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

view report

22 Dec 2021 Diag: Kevin Marson

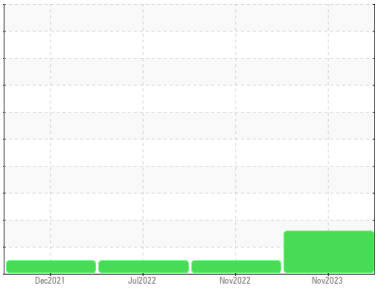
NORMAL

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the sample. Additive levels indicate the addition of a different brand, or type of oil. The condition of the sample is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Vessel
Machine Id
KAT 02 (AUTOFREEZERS)
Component
Hydraulic System
Fluid
SHELL TELLUS S4 VX 32 (500 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0080311**	PC0031769	PC0018569
Sample Date		Client Info		**22 Nov 2023**	08 Nov 2022	24 Jul 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**	NORMAL	NORMAL

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 D5185(m)	>20	**17**	11	8
Chromium	ppm	ASTM D5185(m)	>10	**1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>10	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>20	**1**	1	<1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

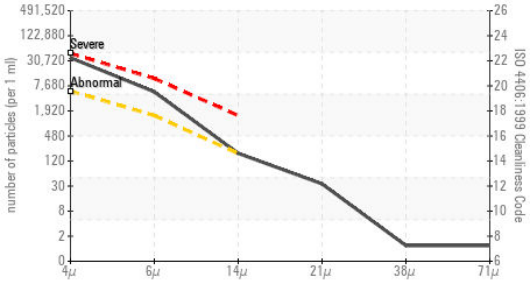
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	0
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	<1	0
Magnesium	ppm	ASTM D5185(m)		**3**	3	3
Calcium	ppm	ASTM D5185(m)		**23**	23	23
Phosphorus	ppm	ASTM D5185(m)		**302**	332	307
Zinc	ppm	ASTM D5185(m)		**242**	238	242
Sulfur	ppm	ASTM D5185(m)		**1059**	1108	1128
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**1**	<1	<1
Sodium	ppm	ASTM D5185(m)		**5**	4	3
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1

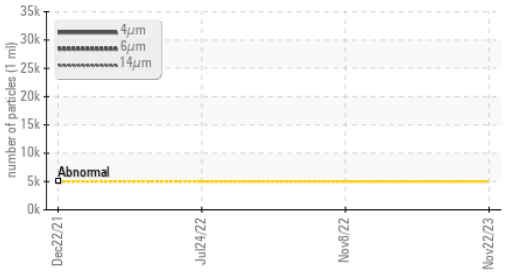
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **31577**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **4793**	---	---
Particles >14µm		ASTM D7647	>160	▲ **162**	---	---
Particles >21µm		ASTM D7647	>40	**30**	---	---
Particles >38µm		ASTM D7647	>10	**1**	---	---
Particles >71µm		ASTM D7647	>3	**1**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/19/15**	---	---

OIL ANALYSIS REPORT

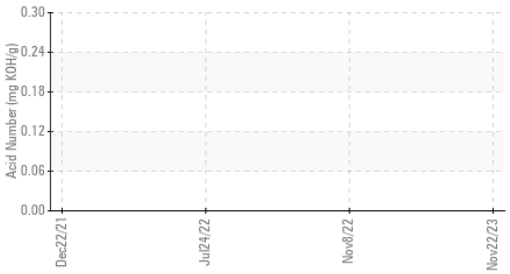
Particle Count



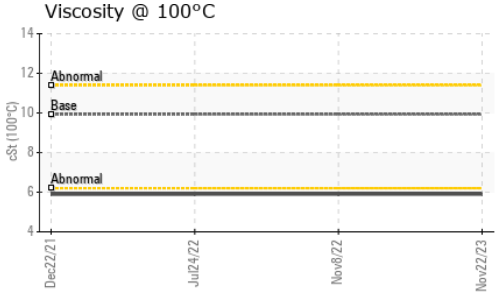
Particle Trend



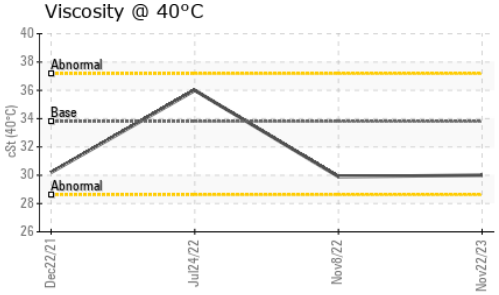
Acid Number



Viscosity @ 100°C



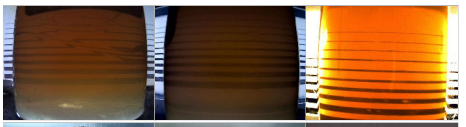
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.27**	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	33.8	**30.0**	29.9	36.0
Visc @ 100°C	cSt	ASTM D7279(m)	9.93	**5.9**	5.9	5.9
Viscosity Index (VI)	Scale	ASTM D2270*	300	**145**	146	106

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080311
Lab Number : 02601826
Unique Number : 5694911
Test Package : IND 2 (Additional Tests: KV100, VI)

Received : 08 Dec 2023
Diagnosed : 11 Dec 2023
Diagnostician : Wes Davis

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

Ocean Choice International - Katsheshuk II
1315 Topsail Rd, P.O. Box 8190
St. John`s, NL
CA A1B 3N4
Contact: Chief Engineer
katengine@oceanchoice.com
T:
F:

Report Id: KATSHESH [WCAMIS] 02601826 (Generated: 12/11/2023 07:07:17) Rev: 1

Submitted By: Stephen Elliott