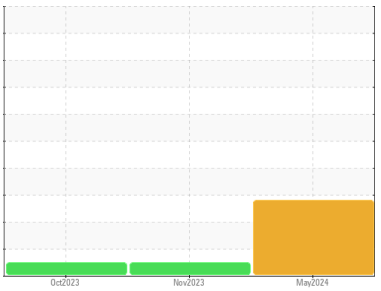
OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Area
Vessel
Machine Id
KAT 022 (SWEEPLINE HYDRAULIC SERVO)
Component
Hydraulic System
Fluid
SHELL TELLUS 22 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear
Light concentration of visible metal present.

Contamination
There is a light amount of silt (particulates < 14 microns in size) present in the oil. Light concentration of visible dirt/debris present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

Particle Filter (Magn: 100 x)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0080247**	PC0080318	PC0011768
Sample Date		Client Info		**17 May 2024**	22 Nov 2023	18 Oct 2023
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				**ATTENTION**	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	**0**	1	<1
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>10	**0**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>10	**0**	0	0
Lead	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>20	**1**	5	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

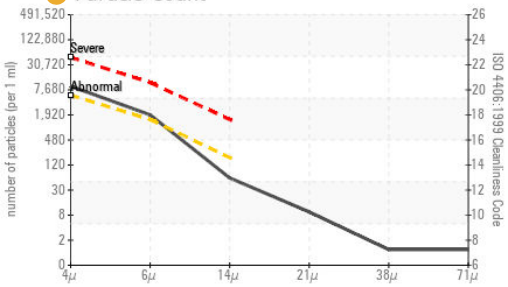
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	<1
Barium	ppm	ASTM D5185(m)		**<1**	<1	<1
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	11	**8**	9	8
Calcium	ppm	ASTM D5185(m)	35	**46**	34	47
Phosphorus	ppm	ASTM D5185(m)	259	**269**	249	262
Zinc	ppm	ASTM D5185(m)	270	**319**	306	317
Sulfur	ppm	ASTM D5185(m)	1849	**1435**	1325	1461
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**2**	10	3
Sodium	ppm	ASTM D5185(m)		**<1**	2	<1
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	0

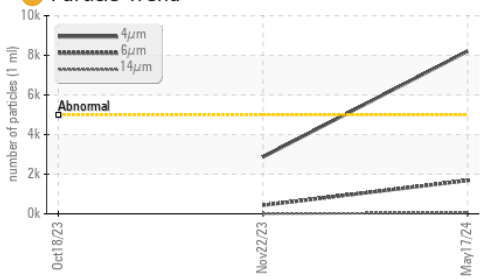
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**8207**	2867	---
Particles >6µm		ASTM D7647	>1300	**1684**	432	---
Particles >14µm		ASTM D7647	>160	**52**	7	---
Particles >21µm		ASTM D7647	>40	**8**	1	---
Particles >38µm		ASTM D7647	>10	**1**	0	---
Particles >71µm		ASTM D7647	>3	**1**	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**20/18/13**	19/16/10	---

OIL ANALYSIS REPORT

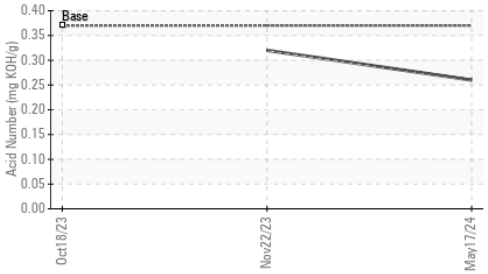
Particle Count



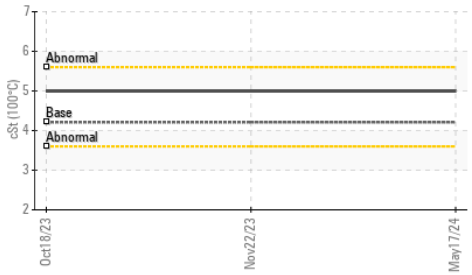
Particle Trend



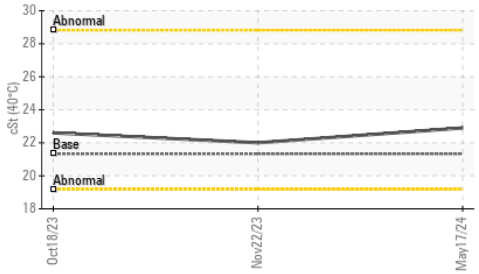
Acid Number



Viscosity @ 100°C



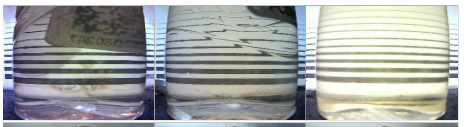
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.37	**0.26**	0.32	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ **VLITE**	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	▲ **VLITE**	NONE	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)	21.33	**22.9**	22.0	22.6
Visc @ 100°C	cSt	ASTM D7279(m)	4.21	**5.0**	5	5
Viscosity Index (VI)	Scale	ASTM D2270*	99	**151**	162	155

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080247
Lab Number : 02637997
Unique Number : 5787159
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, PrtFilterAnalysis)

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Kevin Marson

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:

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.

Report Id: KATSHESH [WCAMIS] 02637997 (Generated: 05/29/2024 16:51:53) Rev: 1

Submitted By: Alf Hartery