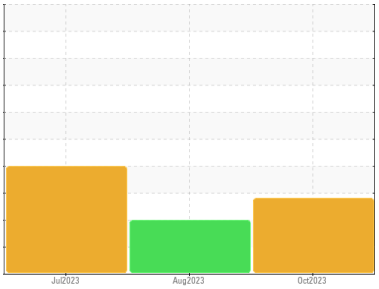
PROBLEM SUMMARY

Sample Rating Trend

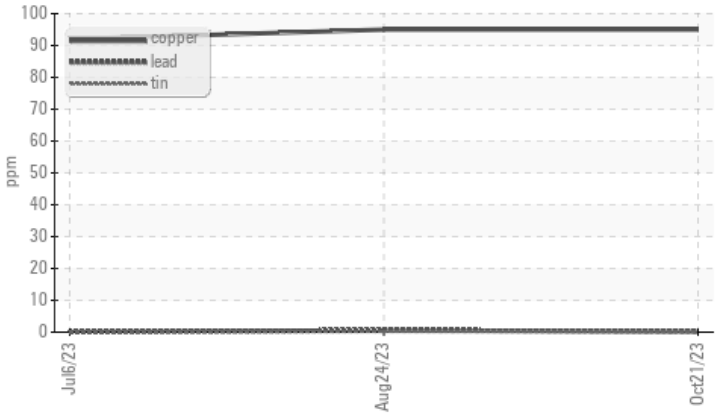


WEAR

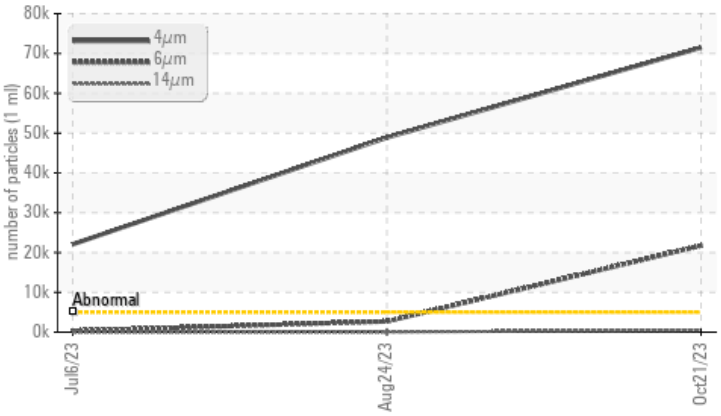
Machine Id
ENDEAVOR
Component
Center Hydraulic System
Fluid
SHELL TELLUS T46 (30 GAL)

COMPONENT CONDITION SUMMARY

Non-ferrous Metals



Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185m	>20	▲ **95**	▲ 95	▲ 92
Particles >4µm		ASTM D7647	>5000	▲ **71485**	▲ 48875	▲ 22068
Particles >6µm		ASTM D7647	>1300	▲ **21737**	▲ 2692	327
Particles >14µm		ASTM D7647	>160	▲ **498**	37	19
Particles >21µm		ASTM D7647	>40	▲ **51**	7	6
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/22/16**	▲ 23/19/12	▲ 22/16/11

Customer Id: CITSANUS
Sample No.: WC0847404
Lab Number: 06012323
Test Package: MAR 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

24 Aug 2023 Diag: Don Baldridge

WEAR

We recommend you service the filters on this component. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

06 Jul 2023 Diag: Doug Bogart

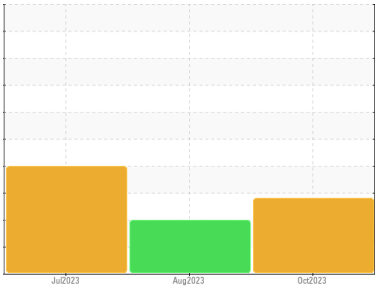
WATER

We recommend you service the filters on this component. Resample at the next service interval to monitor.The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. Appearance is hazy. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
ENDEAVOR
Component
Center Hydraulic System
Fluid
SHELL TELLUS T46 (30 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
The copper level is abnormal. All other 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 acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0847404**	WC0834548	WC0834565
Sample Date		Client Info		**21 Oct 2023**	24 Aug 2023	06 Jul 2023
Machine Age	hrs	Client Info		**0**	0	5700
Oil Age	hrs	Client Info		**0**	0	5700
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	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	**1**	<1	<1
Chromium	ppm	ASTM D5185m	>20	**0**	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**	<1	0
Lead	ppm	ASTM D5185m	>20	**<1**	<1	0
Copper	ppm	ASTM D5185m	>20	▲ **95**	▲ 95	▲ 92
Tin	ppm	ASTM D5185m	>20	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m	0	**0**	5	0
Calcium	ppm	ASTM D5185m	48	**27**	23	25
Phosphorus	ppm	ASTM D5185m	337	**241**	282	280
Zinc	ppm	ASTM D5185m	426	**254**	295	290
Sulfur	ppm	ASTM D5185m	2280	**1882**	2492	2663

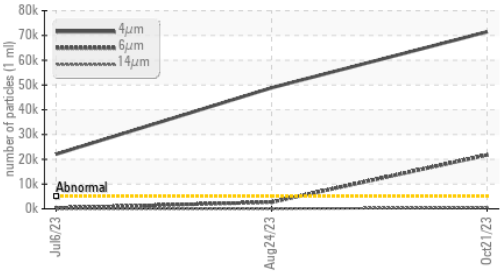
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	<1	<1
Sodium	ppm	ASTM D5185m		**<1**	1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **71485**	▲ 48875	▲ 22068
Particles >6µm		ASTM D7647	>1300	▲ **21737**	▲ 2692	327
Particles >14µm		ASTM D7647	>160	▲ **498**	37	19
Particles >21µm		ASTM D7647	>40	▲ **51**	7	6
Particles >38µm		ASTM D7647	>10	**0**	1	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/22/16**	▲ 23/19/12	▲ 22/16/11

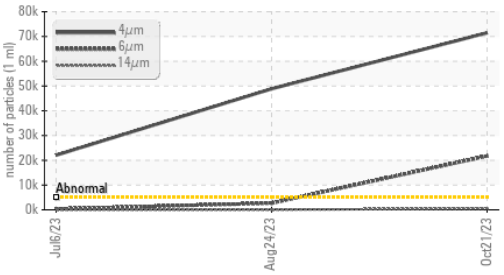
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.6	**0.24**	0.26	0.27

OIL ANALYSIS REPORT

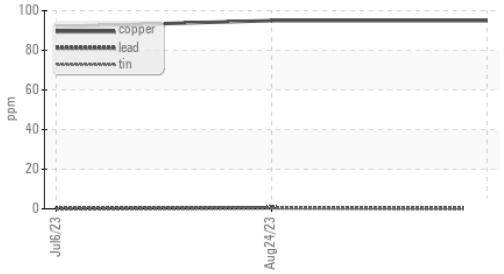
Particle Trend



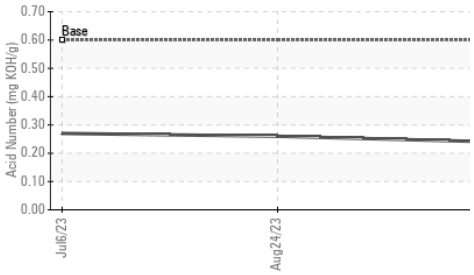
Particle Trend



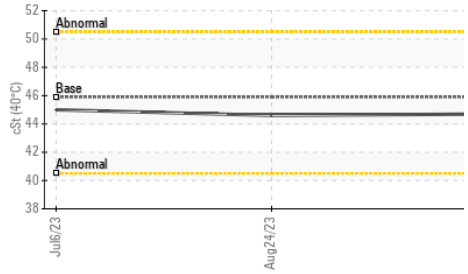
Non-ferrous Metals



Acid Number



Viscosity @ 40°C



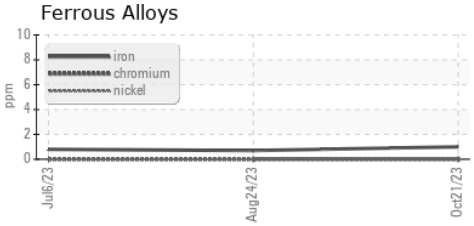
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	▲ HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.9	**44.7**	44.6	45.0

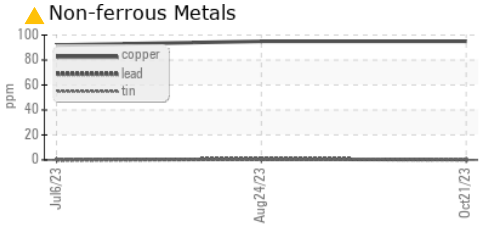
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

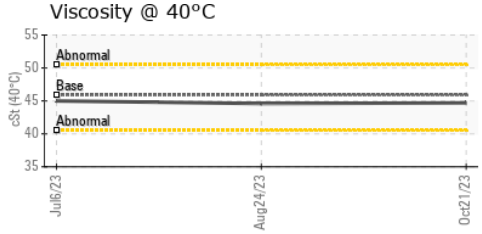
Ferrous Alloys



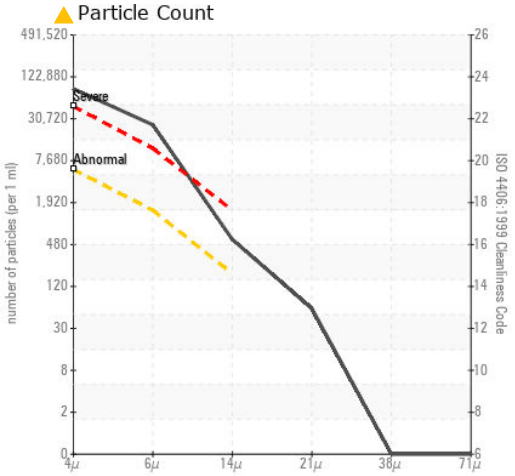
Non-ferrous Metals



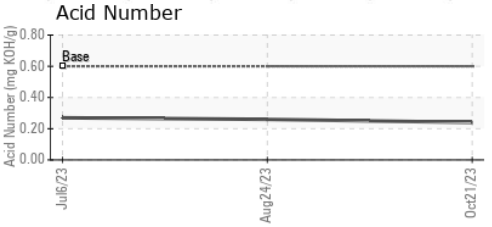
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0847404
Lab Number : 06012323
Unique Number : 10751467
Test Package : MAR 2

Received : 20 Nov 2023
Diagnosed : 22 Nov 2023
Diagnostician : Don Baldridge

Certificate L2367

CITY EXPERIENCES - SEAWARD EXPLORER
2825 5TH AVENUE
SAN DIEGO, CA
US 92103
Contact: Service Manager

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)

T:
F: