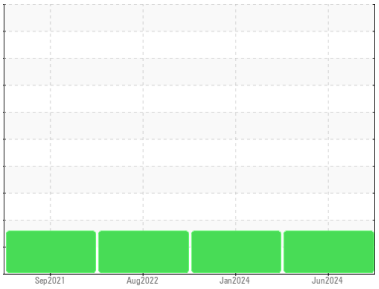
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
10574167
Component
Hydraulic System
Fluid
SHELL OMALA 68 (134 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear
Tin ppm levels are abnormal. Pump thrust plate, or bushing wear is indicated.

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

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0901507**	WC0811775	WC0638695
Sample Date		Client Info		**18 Jun 2024**	03 Jan 2024	16 Aug 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**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

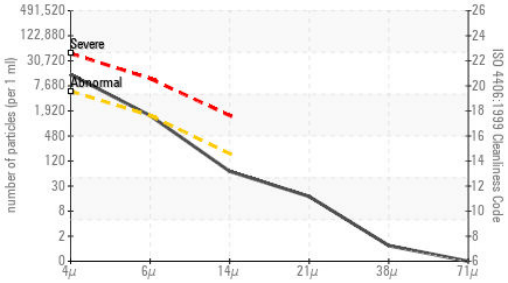
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	---
Iron	ppm	ASTM D5185(m)	>20	**8**	1	7
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>20	**3**	2	4
Copper	ppm	ASTM D5185(m)	>20	**20**	5	19
Tin	ppm	ASTM D5185(m)	>20	▲ **22**	4	▲ 23
Antimony	ppm	ASTM D5185(m)		**1**	0	2
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)		**2**	<1	2
Barium	ppm	ASTM D5185(m)		**<1**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	<1
Magnesium	ppm	ASTM D5185(m)		**1**	<1	1
Calcium	ppm	ASTM D5185(m)		**6**	3	6
Phosphorus	ppm	ASTM D5185(m)		**270**	275	267
Zinc	ppm	ASTM D5185(m)		**48**	13	39
Sulfur	ppm	ASTM D5185(m)		**6306**	5026	5898
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

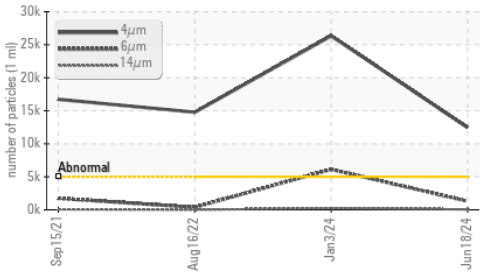
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**<1**	3	2
Sodium	ppm	ASTM D5185(m)		**2**	3	1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	0

OIL ANALYSIS REPORT

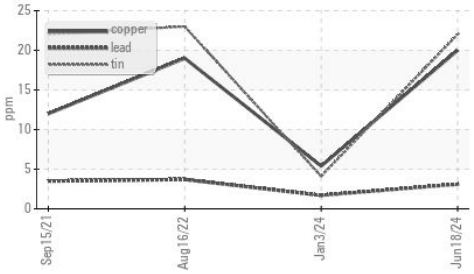
Particle Count



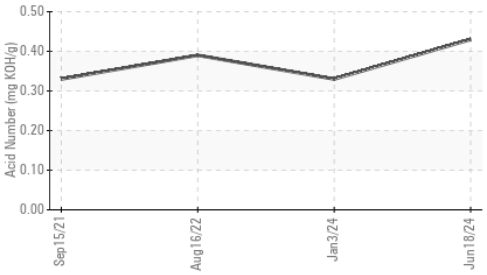
Particle Trend



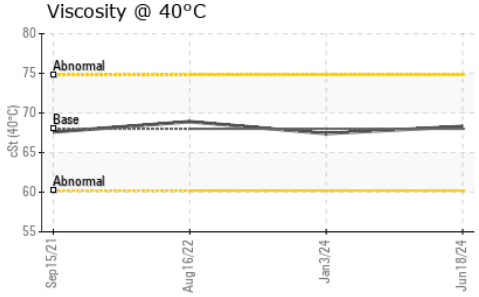
Non-ferrous Metals



Acid Number



Viscosity @ 40°C

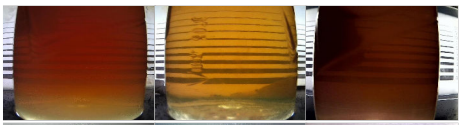


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **12456**	▲ 26330	▲ 14772
Particles >6µm		ASTM D7647	>1300	**1294**	▲ 6123	376
Particles >14µm		ASTM D7647	>160	**60**	● 231	6
Particles >21µm		ASTM D7647	>40	**15**	32	2
Particles >38µm		ASTM D7647	>10	**1**	2	1
Particles >71µm		ASTM D7647	>3	**0**	1	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/17/13**	▲ 22/20/15	▲ 21/16/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.43**	0.33	0.39

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**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	WGOIL	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)	68.0	**68.3**	67.4	68.9

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. : WC0901507
Lab Number : 02644865
Unique Number : 5802404
Test Package : IND 2 (Additional Tests: PQ)

Received : 02 Jul 2024
Tested : 04 Jul 2024
Diagnosed : 04 Jul 2024 - Kevin Marson

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.

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