

OIL ANALYSIS REPORT



COOLING WHEEL

Component

Hydraulic System

SHELL TELLUS 46 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

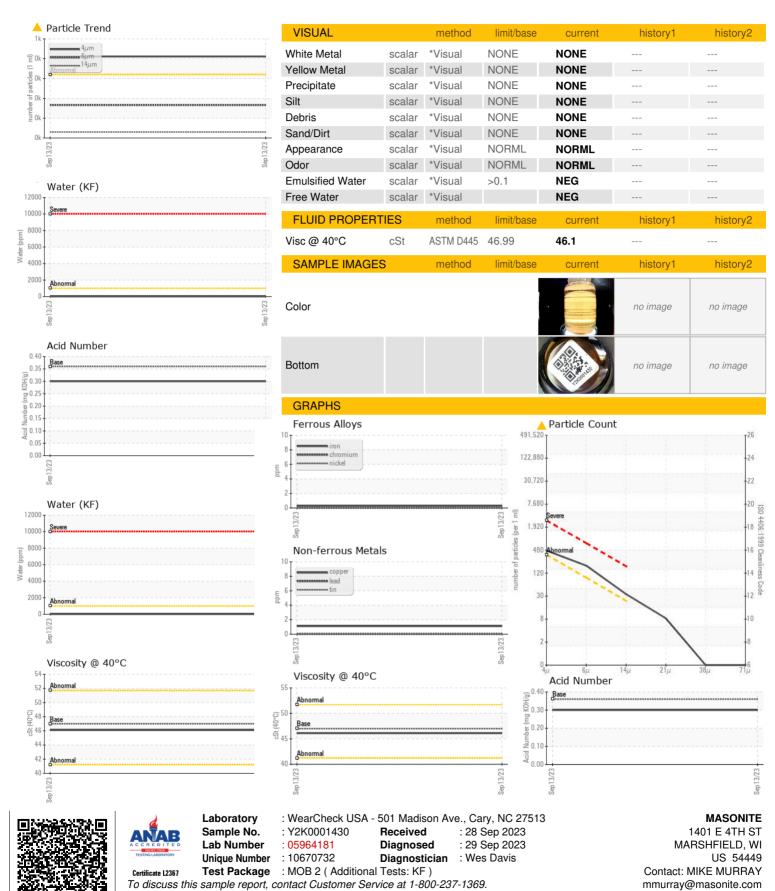
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

	ISO

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		Y2K0001430		
Sample Date		Client Info		13 Sep 2023		
Machine Age	mths	Client Info		0		
Oil Age	mths	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	0		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>75	1		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0.0	0		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	11	5		
Calcium	ppm	ASTM D5185m	35	68		
Phosphorus	ppm	ASTM D5185m	266	286		
Zinc	ppm	ASTM D5185m	276	317		
Sulfur	ppm	ASTM D5185m	1847	3585		
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<1		
Sodium	ppm	ASTM D5185m		<1		
Potassium	ppm	ASTM D5185m	>20	2		
Water	%	ASTM D6304		0.001		
ppm Water	ppm	ASTM D6304		10.0		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>320	411		
Particles >6µm		ASTM D7647	>80	166		
Particles >14µm		ASTM D7647	>20	▲ 30		
Particles >21µm		ASTM D7647	>4	<u>^</u> 7		
Particles >38µm		ASTM D7647	>3	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>15/13/11	△ 16/15/12		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.36	0.30		



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* - 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)

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