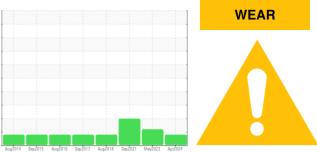


## **OIL ANALYSIS REPORT**

SAMPLE INFORMATION method

Sample Rating Trend

limit/base



current

history1

history2

Machine Id B801 Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- QTS)

#### DIAGNOSIS

#### A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### 📥 Wear

The copper level is abnormal. All other component wear rates are normal.

#### Contamination

There is no indication of any contamination in the component.

#### Fluid Condition

The condition of the oil is acceptable for the time in service.

	/IATION	method	limit/base	current	history i	nistory2
Sample Number		Client Info		HRE0000044	WC0799378	WC0573637
Sample Date		Client Info		06 Apr 2024	15 May 2023	15 Sep 2021
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	N	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	8	7	7
Chromium	ppm	ASTM D5185m	>20	2	6	3
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	<1	2
Copper	ppm	ASTM D5185m	>20	<u> </u>	9	<b>5</b> 4
Tin	ppm	ASTM D5185m	>20	0	<1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	4
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	<1	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	25	2	<1	6
Calcium	ppm	ASTM D5185m	200	57	42	63
Phosphorus			300	313	293	337
	ppm	ASTM D5185m	300	313	293	337
	ppm ppm	ASTM D5185m ASTM D5185m	370	360	363	342
Zinc Sulfur						
Zinc	ppm ppm	ASTM D5185m	370	360	363	342
Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	370 2500 limit/base	360 2458	363 1316	342 2245
Zinc Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method	370 2500 limit/base	360 2458 current	363 1316 history1	342 2245 history2
Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	370 2500 limit/base >15	360 2458 current 2	363 1316 history1 1	342 2245 history2 <1
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	370 2500 limit/base >15	360 2458 current 2 0	363 1316 history1 1 0	342 2245 history2 <1 0
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	370 2500 limit/base >15 >20	360 2458 current 2 0 0	363 1316 history1 1 0 <1	342 2245 history2 <1 0 0
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method	370 2500 limit/base >15 >20 limit/base	360 2458 current 2 0 0 0 current	363 1316 history1 1 0 <1 history1	342 2245 history2 <1 0 0 0 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	370 2500 limit/base >15 >20 limit/base NONE	360 2458 current 2 0 0 0 current NONE	363 1316 history1 1 0 <1 <1 history1 ▲ MODER	342 2245 history2 <1 0 0 history2 ▲ MODER
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE	360 2458 current 2 0 0 0 current NONE NONE	363 1316 history1 1 0 <1 A MODER NONE	342 2245 history2 <1 0 0 history2 ▲ MODER NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE NONE NONE	360 2458 current 2 0 0 0 current NONE NONE NONE	363 1316 history1 1 0 <1 A MODER NONE NONE	342 2245 history2 <1 0 0 history2 MODER NONE NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE NONE NONE	360 2458 current 2 0 0 current NONE NONE NONE NONE NONE	363 1316 history1 1 0 <1 1   0   <1	342 2245 history2 <1 0 0 history2 MODER NONE NONE NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE	360 2458 current 2 0 0 current NONE NONE NONE NONE NONE NONE	363 1316 history1 1 0 <1 * NONE NONE NONE NONE NONE NONE	342 2245 history2 <1 0 0 history2 MODER NONE NONE NONE NONE NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	360 2458 current 2 0 0 0 current NONE NONE NONE NONE NONE NONE NONE	363 1316 history1 1 0 <1 NONE NONE NONE NONE NONE NONE NONE NON	342 2245 history2 <1 0 0 history2 MODER NONE NONE NONE NONE NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	370 2500 limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	360 2458 current 2 0 0 0 current NONE NONE NONE NONE NONE NONE NONE NON	363 1316 history1 1 0 <1 internation on NONE NONE NONE NONE NONE NONE NONE NON	342 2245 history2 <1 0 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO

### HUTCHENS T Z - E

42 Abno

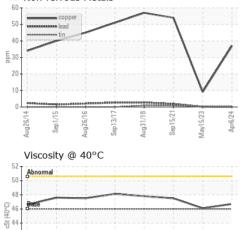
40 38

Aug26/14

Sen 1

# **OIL ANALYSIS REPORT**

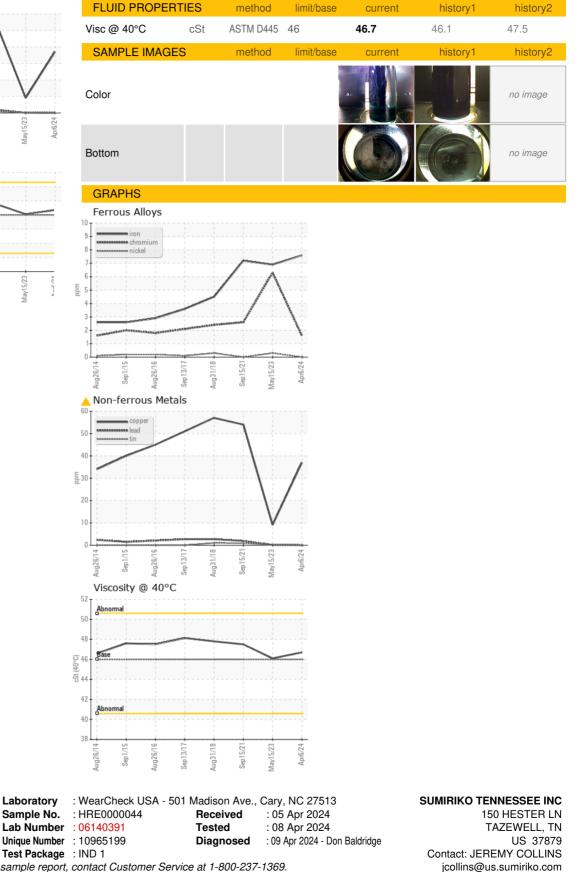




en 13/17

May15/23

2en15/71



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)

Report Id: DTRTAZ [WUSCAR] 06140391 (Generated: 04/09/2024 11:12:27) Rev: 1

Certificate 12367

Laboratory

Sample No.

Contact/Location: JEREMY COLLINS - DTRTAZ

T: (423)626-8805

F: (423)626-2065