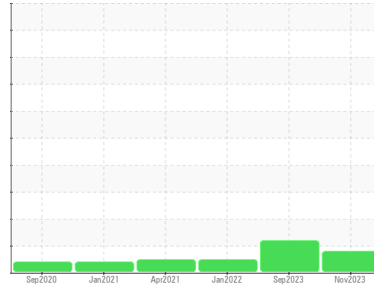




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**HPU-002**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PTK0004943</b>	PTK0001751	PTK0001756
Sample Date	Client Info		<b>02 Nov 2023</b>	14 Sep 2023	13 Jan 2022
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>ATTENTION</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<1	2	<1
Chromium	ppm	ASTM D5185m >10	<b>1</b>	1	0
Nickel	ppm	ASTM D5185m >10	<1	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m >10	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m >75	<b>18</b>	18	11
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	<1	2
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m 25	<b>1</b>	3	18
Calcium	ppm	ASTM D5185m 200	<b>51</b>	51	71
Phosphorus	ppm	ASTM D5185m 300	<b>322</b>	301	391
Zinc	ppm	ASTM D5185m 370	<b>400</b>	382	512
Sulfur	ppm	ASTM D5185m 2500	<b>989</b>	914	1141

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	0	0
Potassium	ppm	ASTM D5185m >20	<1	<1	<1

## FLUID CLEANLINESS

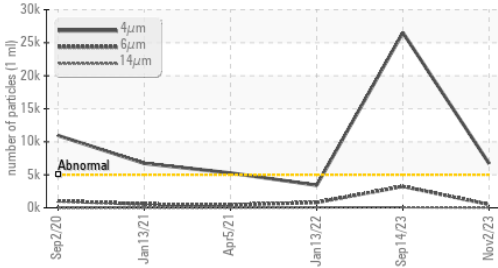
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 6706</b>	▲ 26529	3416
Particles >6µm	ASTM D7647	>1300	<b>496</b>	▲ 3243	805
Particles >14µm	ASTM D7647	>160	<b>20</b>	87	62
Particles >21µm	ASTM D7647	>40	<b>3</b>	12	12
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 20/16/11</b>	▲ 22/19/14	19/17/13

## FLUID DEGRADATION

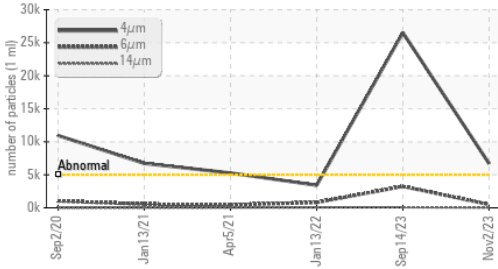
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	<b>0.27</b>	0.26	0.270

# OIL ANALYSIS REPORT

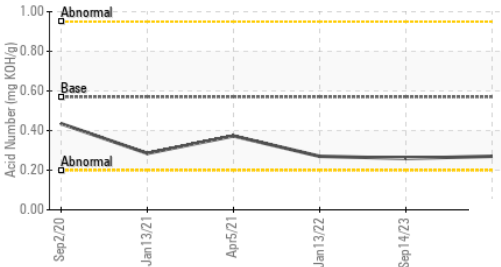
### ▲ Particle Trend



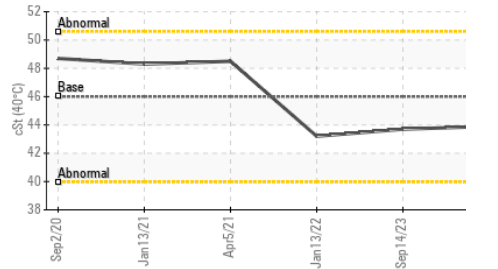
### ▲ Particle Trend



### Acid Number



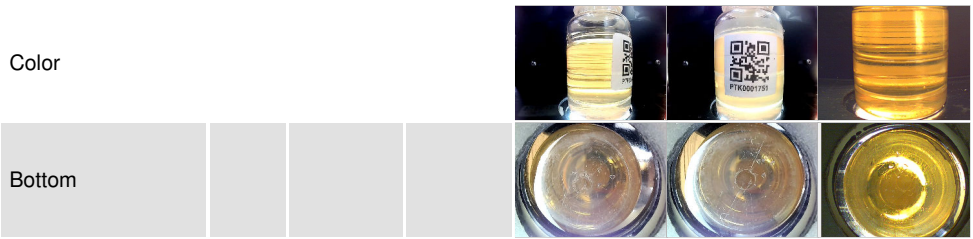
### Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

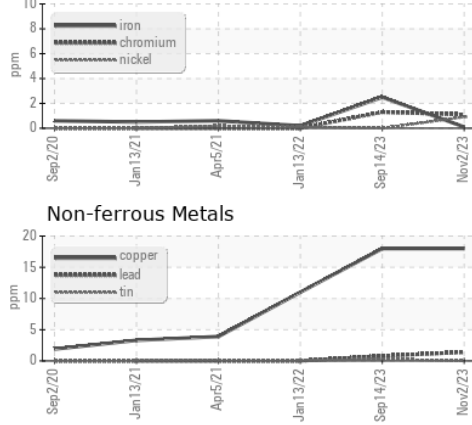
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	43.9	43.7	43.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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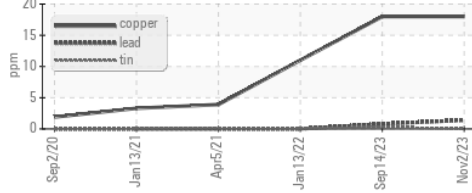


### GRAPHS

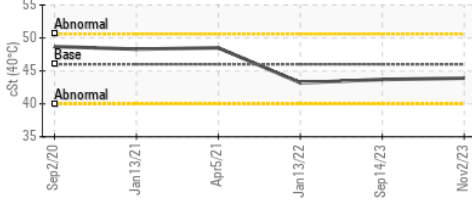
#### Ferrous Alloys



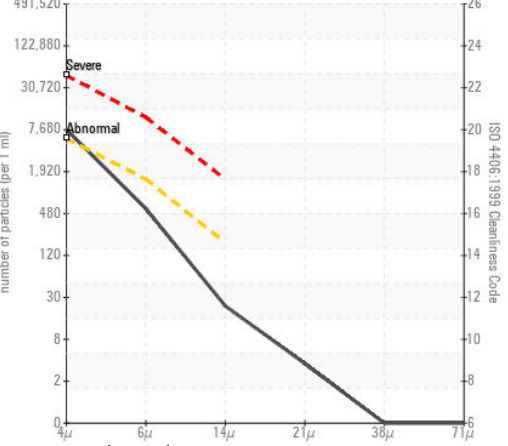
#### Non-ferrous Metals



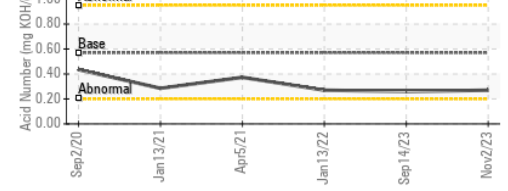
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0004943 **Received** : 07 Nov 2023  
**Lab Number** : 06000463 **Diagnosed** : 08 Nov 2023  
**Unique Number** : 10728823 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**MICROFLEX AUTOMOTIVE**  
 1810 N US HWY 1  
 ORMOND BEACH, FL  
 US 32174  
 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: (386)672-1945

F: