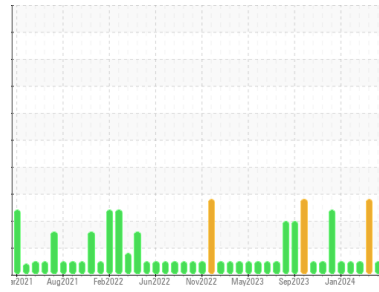




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**MELT SHOP - HYDRAULIC**

Machine Id

**MELT SHOP TUNDISH FLIPPING STAND**

Component

**Hydraulic System**

Fluid

**FIRE-RESISTANT FLUID ISO 46 (275 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The pH level of this fluid is within the acceptable limits at 8.0. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0044186</b>	RP0042704	RP0035579
Sample Date	Client Info		<b>06 Jun 2024</b>	09 May 2024	28 Mar 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	3
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	0	11
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	2
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m 50	<b>0</b>	0	6
Phosphorus	ppm	ASTM D5185m 175	<b>7</b>	0	6
Zinc	ppm	ASTM D5185m 62	<b>8</b>	11	3

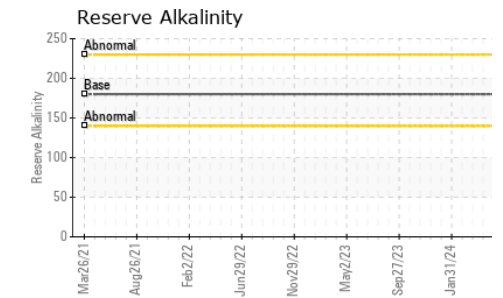
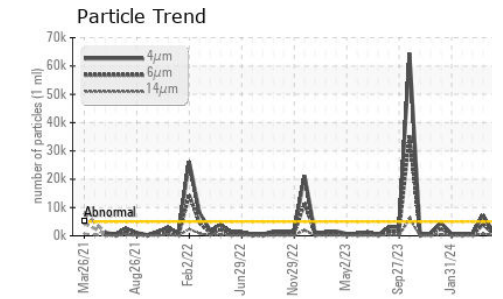
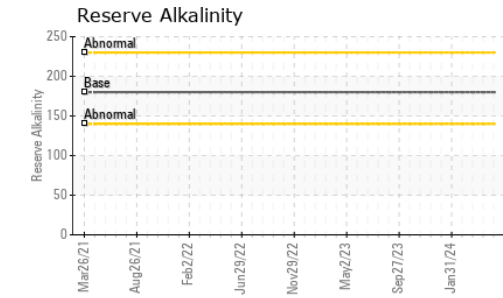
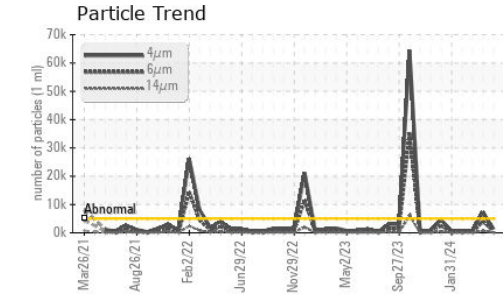
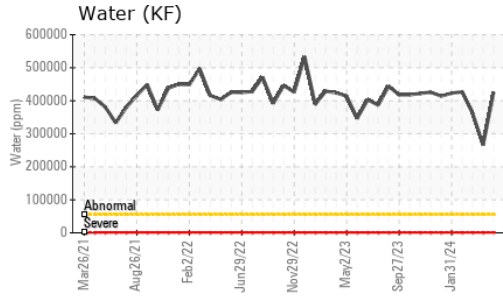
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	3
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	32
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	7
Water	%	ASTM D6304 >55	<b>42.5</b>	26.6	36.2
ppm Water	ppm	ASTM D6304 >55000	<b>425000</b>	266000	362000

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>1340</b>	▲ 7238	705
Particles >6µm	ASTM D7647	>1300	<b>730</b>	▲ 3943	384
Particles >14µm	ASTM D7647	>160	<b>124</b>	▲ 671	65
Particles >21µm	ASTM D7647	>40	<b>42</b>	▲ 226	22
Particles >38µm	ASTM D7647	>10	<b>6</b>	▲ 35	3
Particles >71µm	ASTM D7647	>3	<b>1</b>	▲ 4	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>18/17/14</b>	▲ 20/19/17	17/16/13

# OIL ANALYSIS REPORT

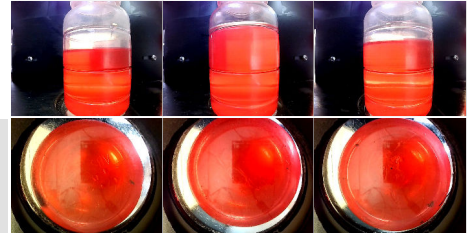
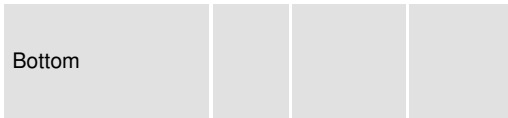


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>55	0.2%	0.2%
Free Water	scalar	*Visual		NEG	NEG

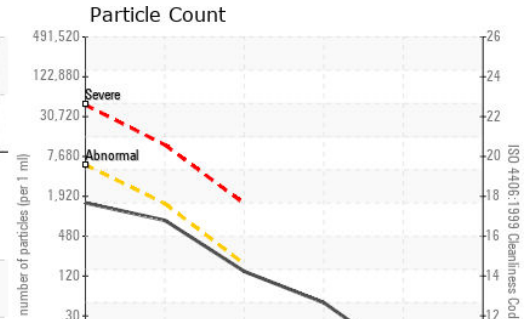
FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287	9.00	9.00	8.00
Visc @ 40°C	cSt	ASTM D445	46	47.0	46.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0044186 **Received** : 07 Jun 2024  
**Lab Number** : 06203428 **Tested** : 13 Jun 2024  
**Unique Number** : 11070889 **Diagnosed** : 13 Jun 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: pH, ReserveAlk )

**OUTOKUMPU STAINLESS USA**  
 HWY 43 N  
 CALVERT, AL  
 US 36513  
 Contact: MARIO JOHNSON  
 Mario.johnson@outokumpu.com  
 T: (251)321-4105  
 F: x:

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)