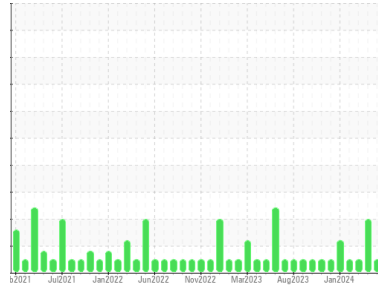




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**MELT SHOP - HYDRAULIC**  
 Machine Id  
**MELT SHOP CED VESSEL CART**  
 Component  
**Tank Hydraulic System**  
 Fluid  
**FIRE-RESISTANT FLUID ISO 46 (290 QTS)**

**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>RP0044193</b>	RP0042706	RP0042716
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>	ATTENTION	NORMAL

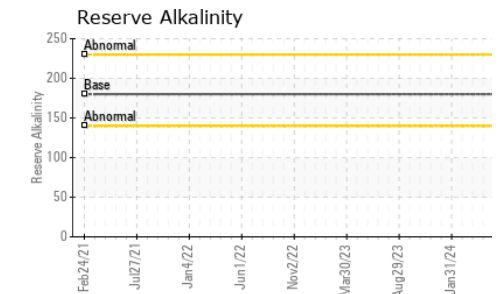
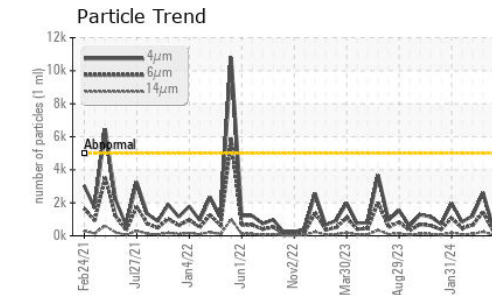
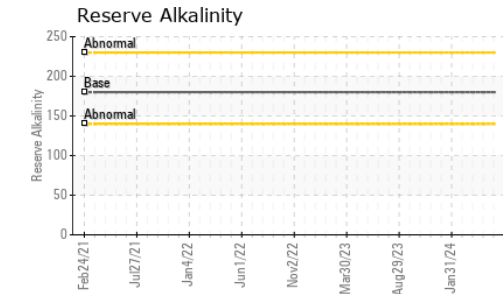
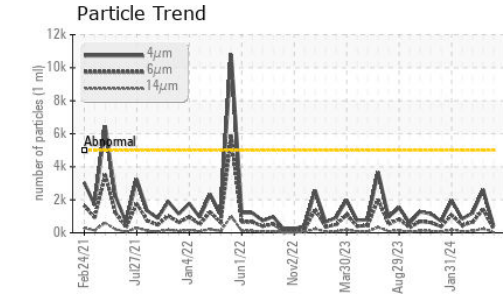
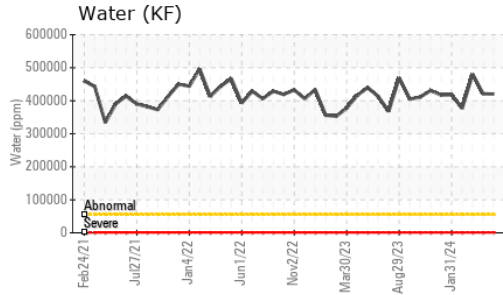
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	0	13
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	2
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	7
Barium	ppm	ASTM D5185m	5	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	5	<b>&lt;1</b>	<1	1
Calcium	ppm	ASTM D5185m	50	<b>0</b>	2	7
Phosphorus	ppm	ASTM D5185m	175	<b>10</b>	5	7
Zinc	ppm	ASTM D5185m	62	<b>11</b>	23	12

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	4
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	35
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	11
Water	%	ASTM D6304	>55	<b>42.0</b>	42.1	48.0
ppm Water	ppm	ASTM D6304	>55000	<b>420000</b>	421000	480000

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>418</b>	2610	1201
Particles >6µm		ASTM D7647	>1300	<b>227</b>	1422	654
Particles >14µm		ASTM D7647	>160	<b>39</b>	242	111
Particles >21µm		ASTM D7647	>40	<b>13</b>	82	37
Particles >38µm		ASTM D7647	>10	<b>2</b>	13	6
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/15/12</b>	19/18/15	17/17/14

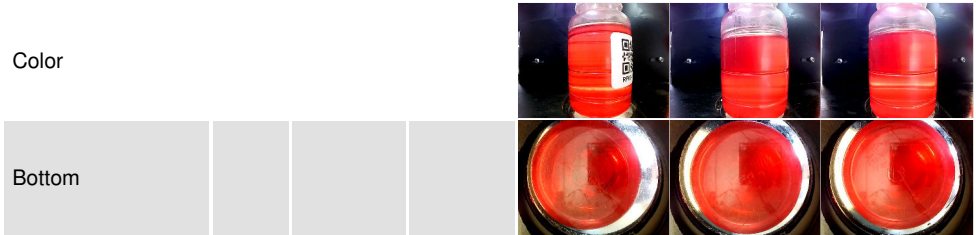
# OIL ANALYSIS REPORT



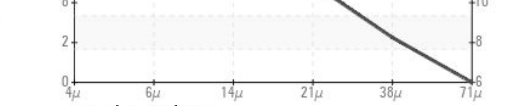
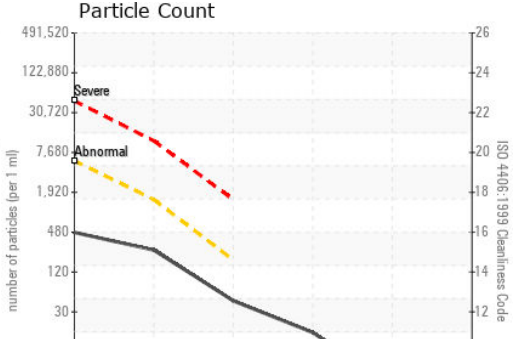
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	10.0	9.00	9.00
Visc @ 40°C	cSt	ASTM D445	46	47.0	49.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0044193  
**Lab Number** : 06203427  
**Unique Number** : 11070888  
**Test Package** : IND 2 ( Additional Tests: pH, ReserveAlk )  
**Received** : 07 Jun 2024  
**Tested** : 13 Jun 2024  
**Diagnosed** : 13 Jun 2024 - Angela Borella

**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)