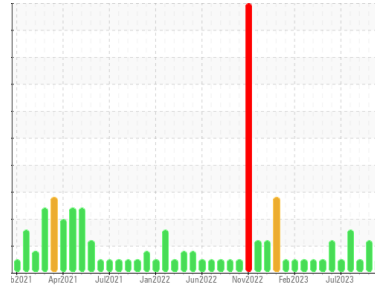




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
MELT SHOP - HYDRAULIC
 Machine Id
MELT SHOP EAF MAIN HYDRAULIC UNIT (S/N 15-2000-0815-0010)
 Component
Tank Hydraulic System
 Fluid
FIRE-RESISTANT FLUID ISO 46 (1585 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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 7.0. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0038017	RP0037958	RP0034952
Sample Date	Client Info		06 Dec 2023	07 Nov 2023	27 Sep 2023
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			NORMAL	ATTENTION	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	0
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	<1	<1	0
Tin	ppm	ASTM D5185m >20	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0	0
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 5	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m 5	<1	0	3
Calcium	ppm	ASTM D5185m 50	<1	0	2
Phosphorus	ppm	ASTM D5185m 175	4	0	4
Zinc	ppm	ASTM D5185m 62	0	0	9

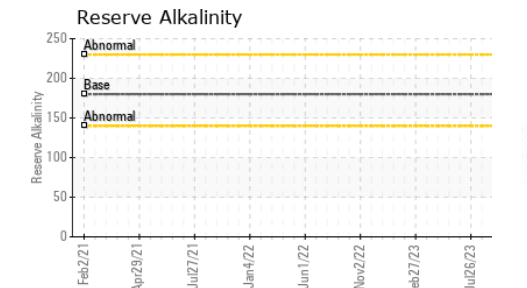
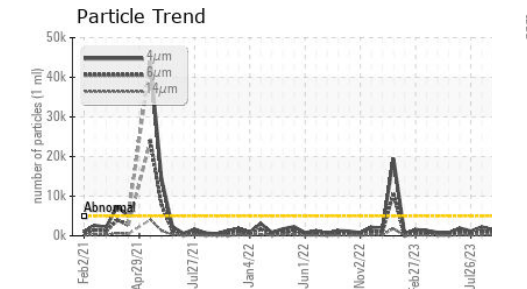
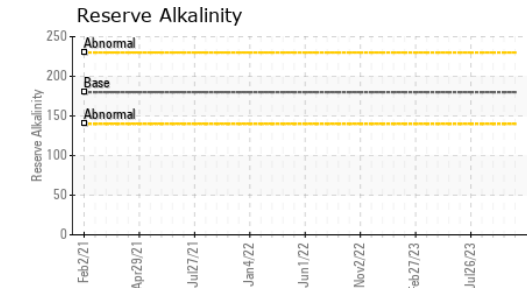
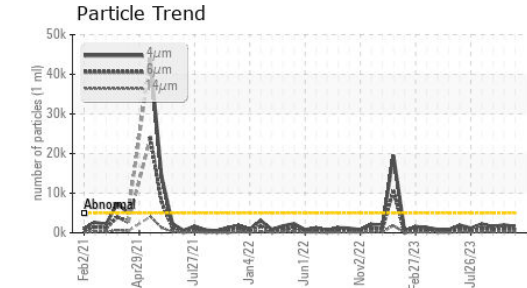
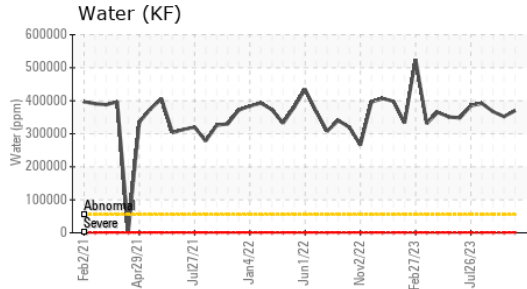
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	0
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	1	<1	0
Water	%	ASTM D6304 >55	37.0	35.2	36.7
ppm Water	ppm	ASTM D6304 >55000	370000	352000	367000

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	1566	2018	1566
Particles >6µm	ASTM D7647	>1300	853	1099	853
Particles >14µm	ASTM D7647	>160	145	▲ 187	145
Particles >21µm	ASTM D7647	>40	49	▲ 63	49
Particles >38µm	ASTM D7647	>10	8	10	8
Particles >71µm	ASTM D7647	>3	1	1	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	18/17/14	▲ 18/17/15	18/17/14

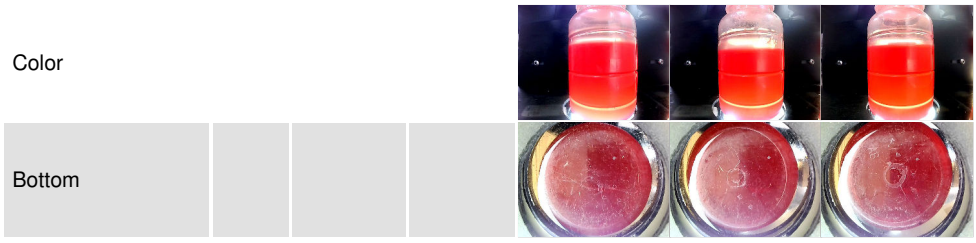
OIL ANALYSIS REPORT



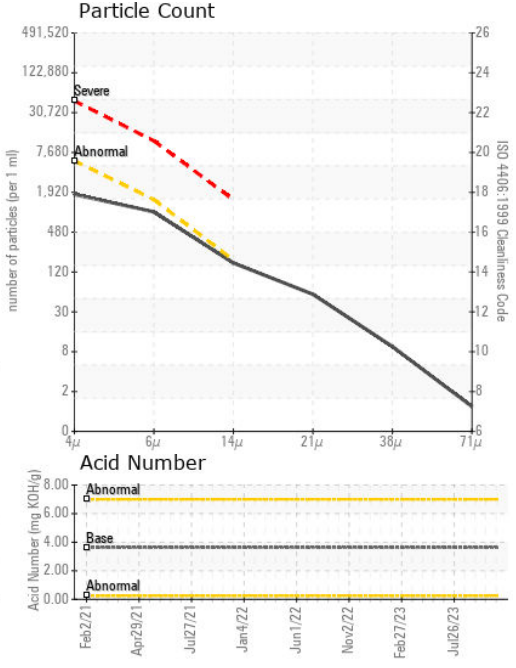
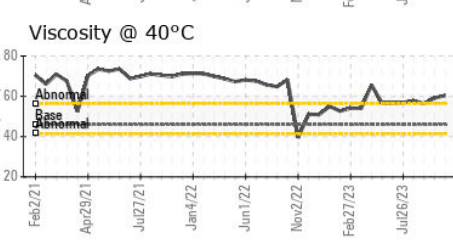
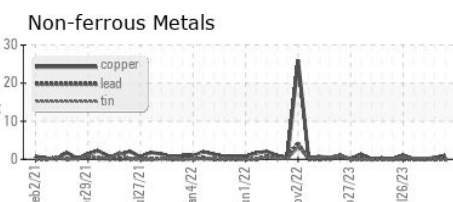
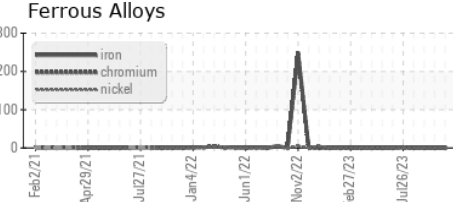
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	7.0	11.0	11.0
Visc @ 40°C	cSt	ASTM D445	46	60.4	56.4

SAMPLE IMAGES method limit/base current history1 history2



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038017 **Received** : 07 Dec 2023
Lab Number : 06028738 **Diagnosed** : 13 Dec 2023
Unique Number : 10778529 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: pH, ReserveAlk)
 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)

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