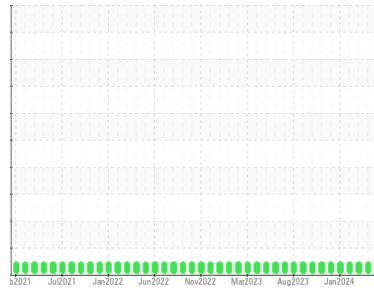




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
HAPL - HYDRAULIC
 Machine Id
HAPL ENTRY HYDRAULIC UNIT (S/N 16-1100-1310)
 Component
Hydraulic System
 Fluid
SAE 10W (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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		RP0044249	RP0042515	RP0042178
Sample Date	Client Info		03 Jun 2024	08 May 2024	26 Mar 2024
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	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<1	0	0
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	<1	0	0
Tin	ppm	ASTM D5185m >20	0	<1	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	0	0	0
Barium	ppm	ASTM D5185m	<1	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	0	0
Calcium	ppm	ASTM D5185m	44	45	38
Phosphorus	ppm	ASTM D5185m	290	338	302
Zinc	ppm	ASTM D5185m	370	412	391

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	5	2	1
Sodium	ppm	ASTM D5185m	0	<1	<1
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.05	0.003	0.006	0.003
ppm Water	ppm	ASTM D6304 >500	31	65	33

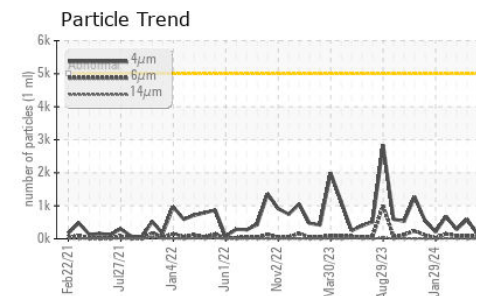
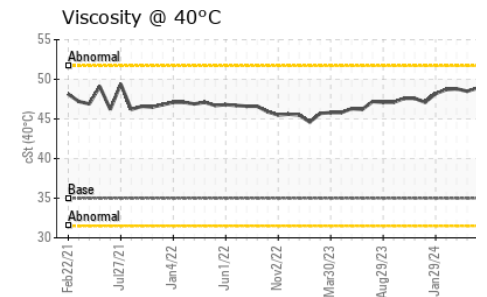
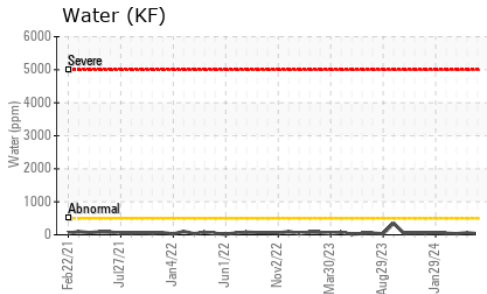
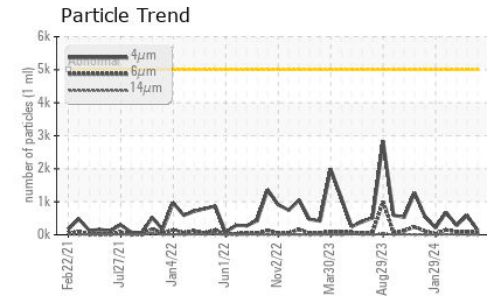
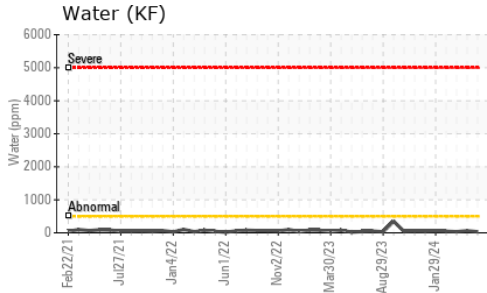
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	138	582	284
Particles >6µm	ASTM D7647	>1300	60	102	84
Particles >14µm	ASTM D7647	>160	8	8	12
Particles >21µm	ASTM D7647	>40	3	2	3
Particles >38µm	ASTM D7647	>10	1	0	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	14/13/10	16/14/10	15/14/11

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.29	0.28	0.32

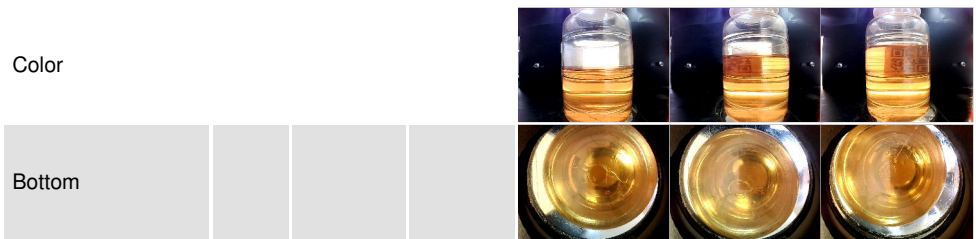
OIL ANALYSIS REPORT



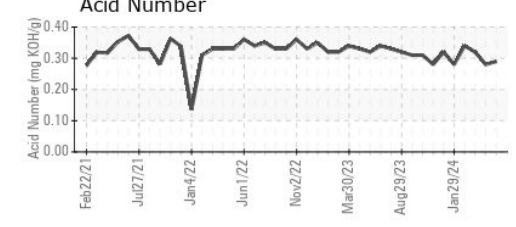
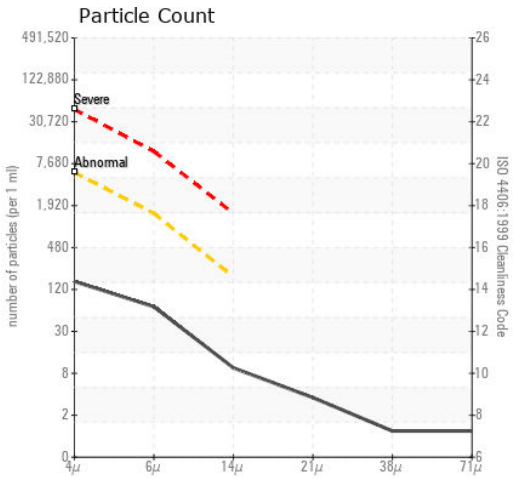
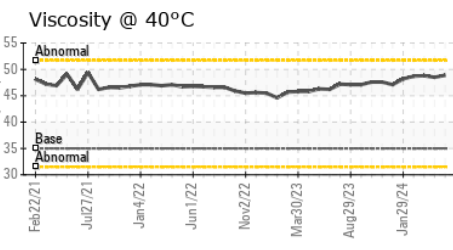
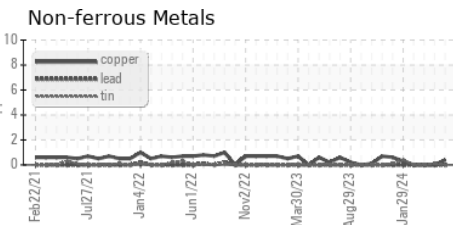
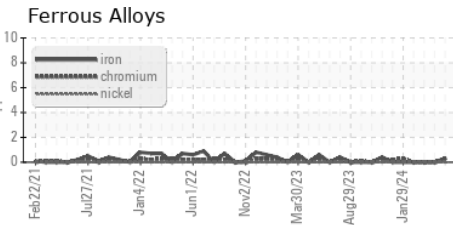
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	35.0	48.9	48.5

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. : RP0044249
Lab Number : 06199110
Unique Number : 11061233
Test Package : IND 2
Received : 04 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 06 Jun 2024 - Don Baldrige

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)