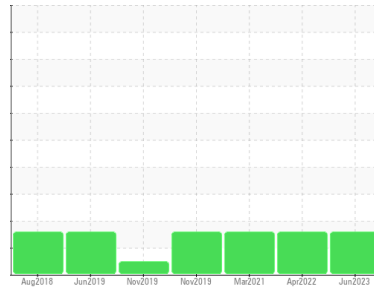


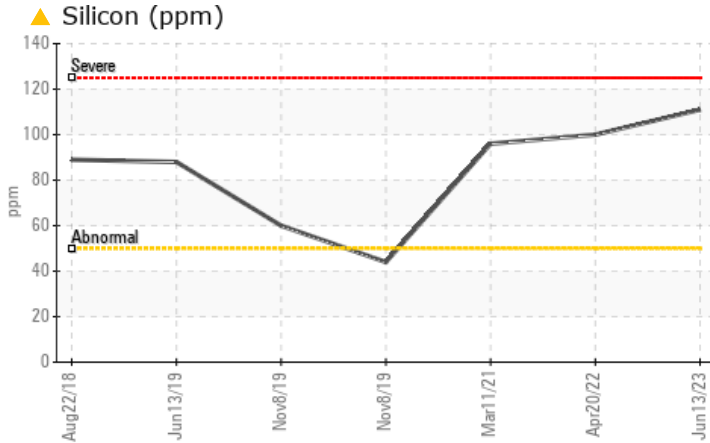
PROBLEM SUMMARY

Sample Rating Trend



Area
HAPL CRANES
 Machine Id
10.1 CRANE - WEST BRIDGE
 Component
Gearbox
 Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>50
	▲ 111	▲ 100	▲ 96

Customer Id: OUTCALAL
 Sample No.: RP0034906
 Lab Number: 05873929
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

20 Apr 2022 Diag: Jonathan Hester

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



11 Mar 2021 Diag: Angela Borella

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Nov 2019 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

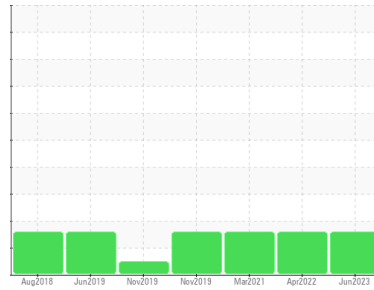
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
HAPL CRANES
 Machine Id
10.1 CRANE - WEST BRIDGE
 Component
Gearbox
 Fluid
NOT GIVEN (--- 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

Elemental level of silicon (Si) above normal.

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		RP0034906	RP0024987	RP0015497
Sample Date	Client Info		13 Jun 2023	20 Apr 2022	11 Mar 2021
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			ABNORMAL	ABNORMAL	ABNORMAL

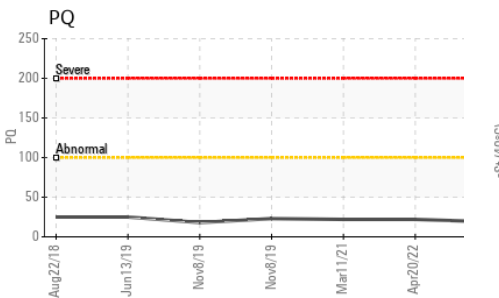
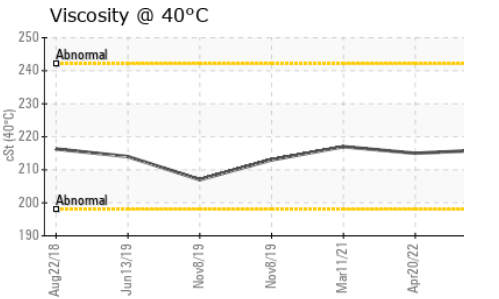
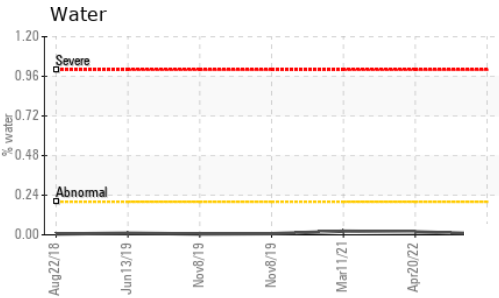
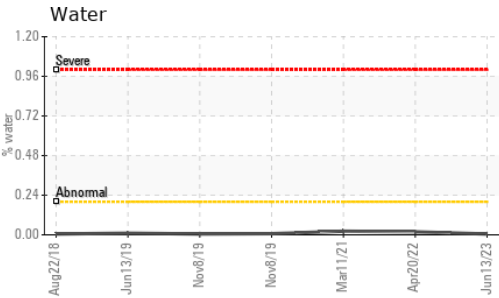
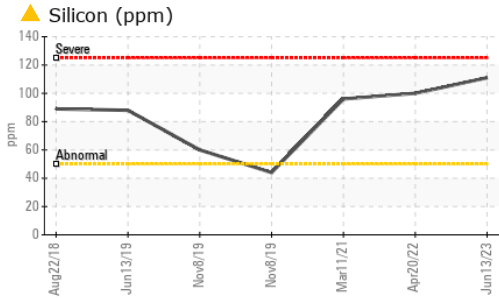
WEAR METALS	method	limit/base	current	history1	history2
PQ	ASTM D8184		19	22	22
Iron	ppm	ASTM D5185m >200	15	13	11
Chromium	ppm	ASTM D5185m >15	<1	<1	<1
Nickel	ppm	ASTM D5185m >15	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >25	1	4	2
Lead	ppm	ASTM D5185m >100	0	<1	0
Copper	ppm	ASTM D5185m >200	<1	<1	<1
Tin	ppm	ASTM D5185m >25	0	<1	0
Antimony	ppm	ASTM D5185m >5	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	3
Barium	ppm	ASTM D5185m	3	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	61	70	55
Calcium	ppm	ASTM D5185m	9	9	8
Phosphorus	ppm	ASTM D5185m	343	405	322
Zinc	ppm	ASTM D5185m	10	5	6

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	▲ 111	▲ 100	▲ 96
Sodium	ppm	ASTM D5185m	9	9	9
Potassium	ppm	ASTM D5185m >20	1	2	<1
Water	%	ASTM D6304 >0.2	0.005	0.018	0.022
ppm Water	ppm	ASTM D6304 >2000	56.5	180.1	222.8

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.66	0.66	0.579

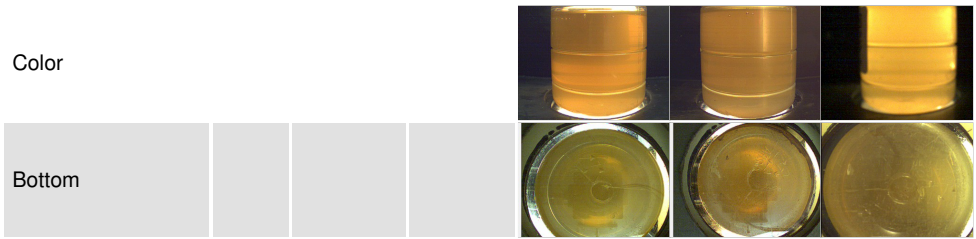
OIL ANALYSIS REPORT



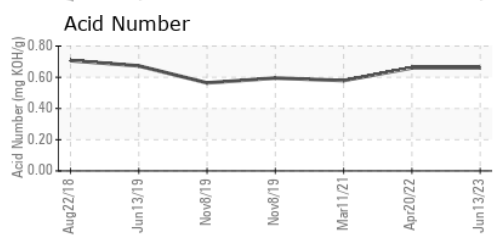
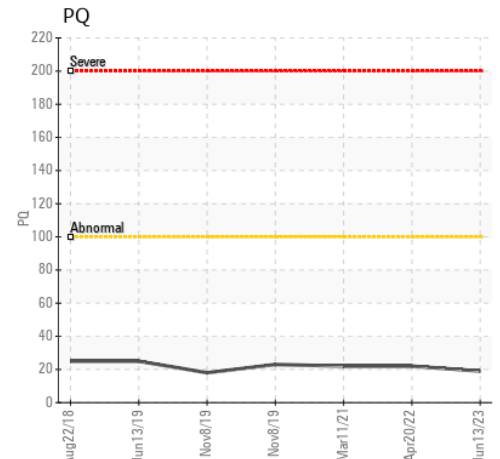
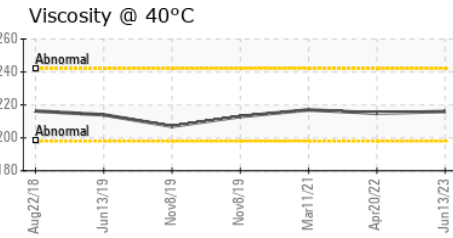
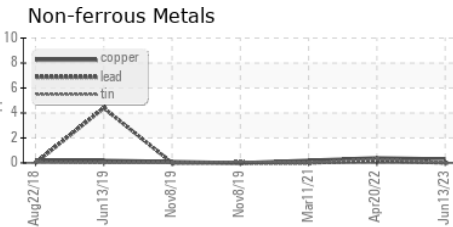
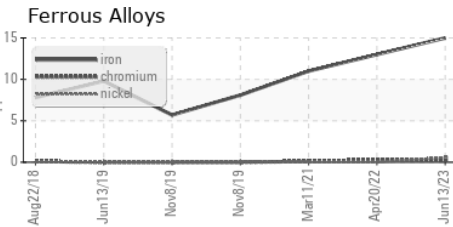
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	216	215	217

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034906 **Received** : 14 Jun 2023
Lab Number : 05873929 **Diagnosed** : 16 Jun 2023
Unique Number : 10519032 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: PQ)

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

Certificate L2367
 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)