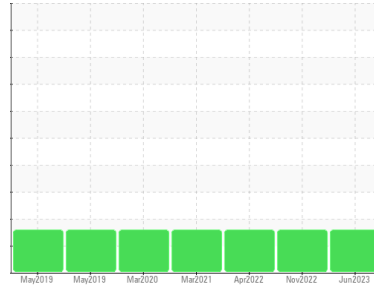


PROBLEM SUMMARY

Sample Rating Trend

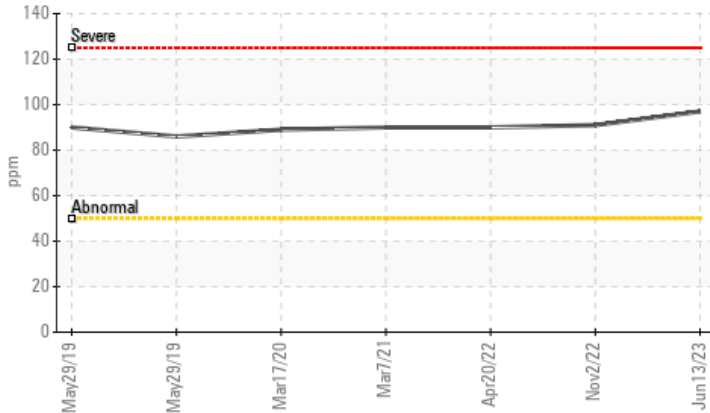
DIRT

Area
CONNECTION BAY CRANES
Machine Id
CB 20.3 CRANE EAST TROLLEY
Component
Gearbox
Fluid
MOBIL 220 (--- QTS)



COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	MARGINAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>50
	▲ 97	▲ 91	▲ 90

Customer Id: OUTCALAL
Sample No.: RP0034496
Lab Number: 05873887
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

02 Nov 2022 Diag: Doug Bogart

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



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



07 Mar 2021 Diag: Jonathan Hester

DIRT



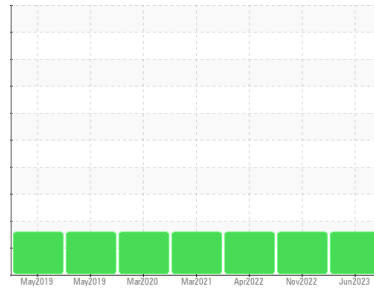
No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The water content is negligible. The AN level is acceptable for this fluid. The condition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

view report



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
CONNECTION BAY CRANES
 Machine Id
CB 20.3 CRANE EAST TROLLEY
 Component
Gearbox
 Fluid
MOBIL 220 (--- QTS)

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 indicating ingress of seal material. The water content is negligible.

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		RP0034496	RP0030751	RP0025058
Sample Date	Client Info		13 Jun 2023	02 Nov 2022	20 Apr 2022
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	MARGINAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		14	9	14
Iron	ppm	ASTM D5185m >200	6	5	6
Chromium	ppm	ASTM D5185m >15	0	0	<1
Nickel	ppm	ASTM D5185m >15	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	0	2
Aluminum	ppm	ASTM D5185m >25	<1	2	3
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >200	<1	<1	<1
Tin	ppm	ASTM D5185m >25	0	0	<1
Antimony	ppm	ASTM D5185m >5	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	2
Barium	ppm	ASTM D5185m	2	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	54	52	62
Calcium	ppm	ASTM D5185m	9	4	6
Phosphorus	ppm	ASTM D5185m	342	382	410
Zinc	ppm	ASTM D5185m	28	24	22

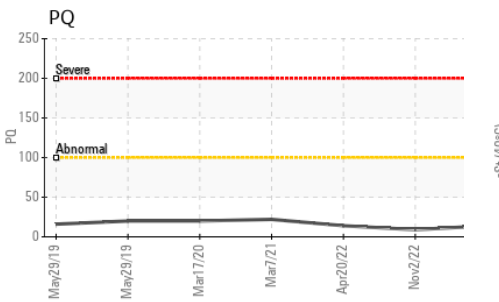
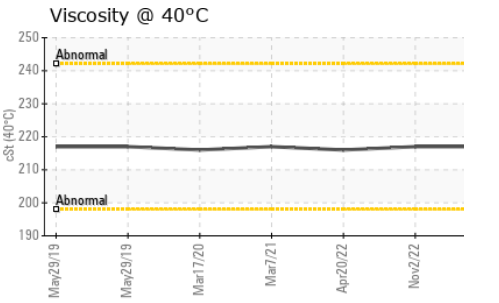
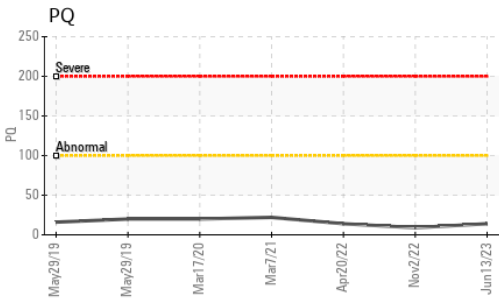
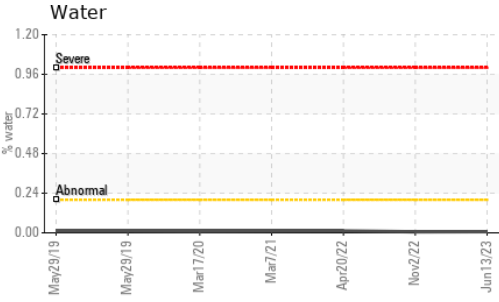
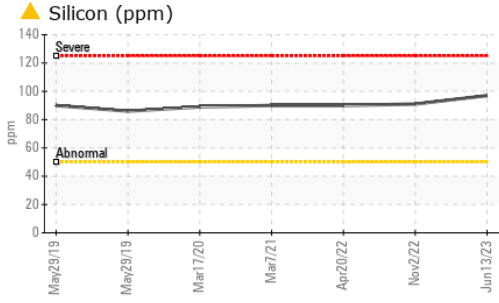
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	▲ 97	▲ 91	▲ 90
Sodium	ppm	ASTM D5185m	7	6	7
Potassium	ppm	ASTM D5185m >20	2	0	1
Water	%	ASTM D6304 >0.2	0.007	0.006	0.012
ppm Water	ppm	ASTM D6304 >2000	77.0	68.7	120.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.69	0.68	0.68

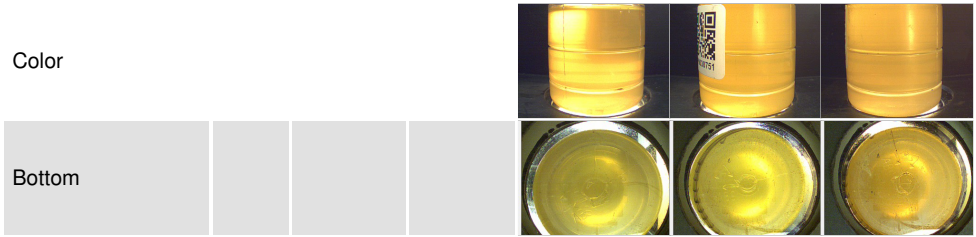
OIL ANALYSIS REPORT



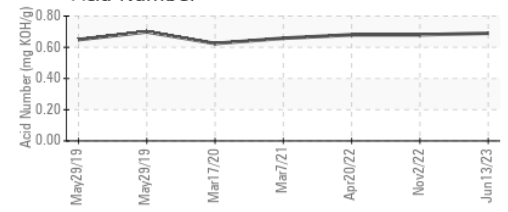
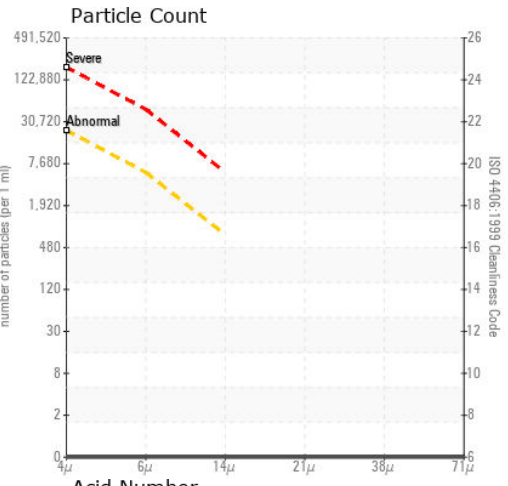
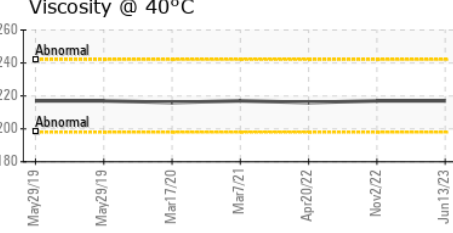
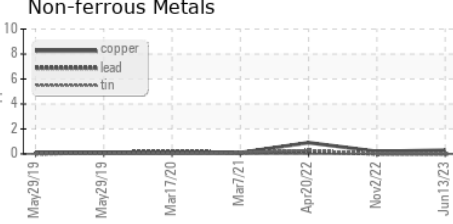
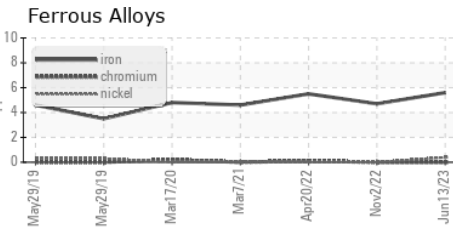
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	217	217	216

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034496 **Received** : 14 Jun 2023
Lab Number : 05873887 **Diagnosed** : 20 Jun 2023
Unique Number : 10518990 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

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)