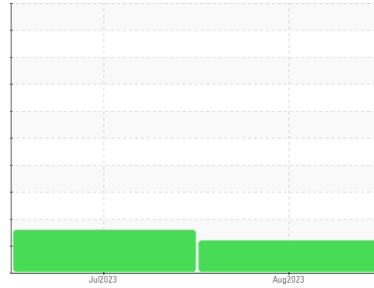


PROBLEM SUMMARY

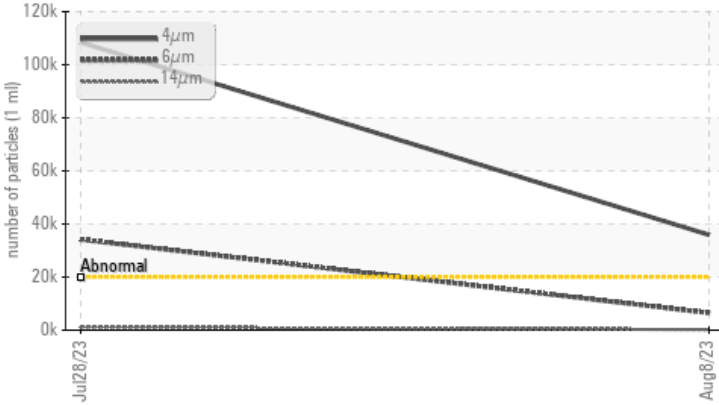
Sample Rating Trend



Machine Id
TRIOLIET BV 11732972/ING01
 Component
Gearbox
 Fluid
SHELL OMALA S4 GX 220 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	---
Particles >4µm	ASTM D7647	>20000	▲ 35904	▲ 108420	---
Particles >6µm	ASTM D7647	>5000	▲ 6482	▲ 34157	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 22/20/15	▲ 24/22/17	---

Customer Id: MORDAL
 Sample No.: PE0002481
 Lab Number: 05924764
 Test Package: CONST



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

28 Jul 2023 Diag: Don Baldrige

ISO



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

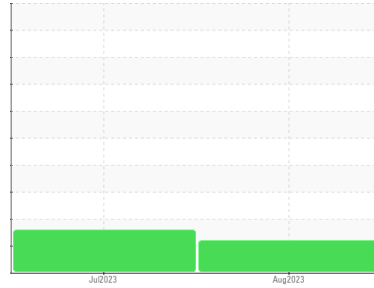
view report





Machine Id
TRIO LIET BV 11732972/ING01

Component
Gearbox
Fluid
SHELL OMALA S4 GX 220 (--- 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 a moderate amount of silt (particulates < 14 microns in size) present 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		PE0002481	PE0002476	---
Sample Date	Client Info		08 Aug 2023	28 Jul 2023	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ATTENTION	ABNORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		17	17	---
Iron	ppm	ASTM D5185m >200	5	6	---
Chromium	ppm	ASTM D5185m >15	0	<1	---
Nickel	ppm	ASTM D5185m >15	0	<1	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m	0	0	---
Aluminum	ppm	ASTM D5185m >25	<1	0	---
Lead	ppm	ASTM D5185m >100	<1	<1	---
Copper	ppm	ASTM D5185m >200	0	<1	---
Tin	ppm	ASTM D5185m >25	0	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	3	3	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	0	0	---
Manganese	ppm	ASTM D5185m	0	<1	---
Magnesium	ppm	ASTM D5185m	2	<1	---
Calcium	ppm	ASTM D5185m	7	3	---
Phosphorus	ppm	ASTM D5185m	395	386	---
Zinc	ppm	ASTM D5185m	92	81	---
Sulfur	ppm	ASTM D5185m	5605	5910	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	3	3	---
Sodium	ppm	ASTM D5185m	0	<1	---
Potassium	ppm	ASTM D5185m >20	<1	1	---

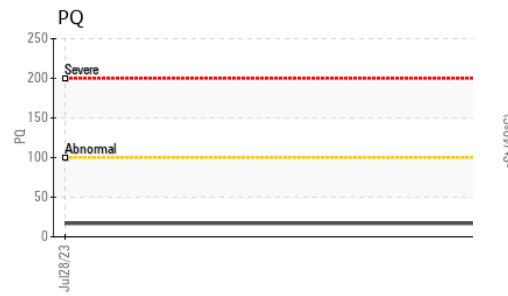
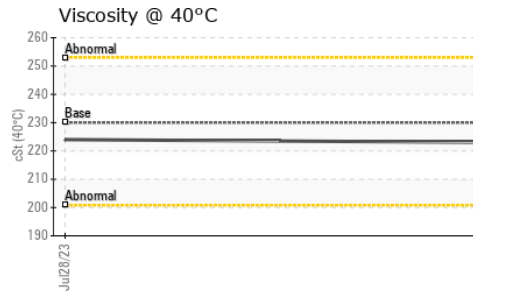
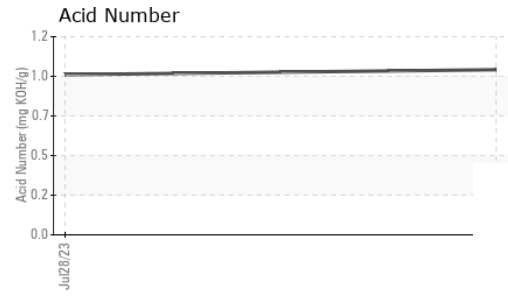
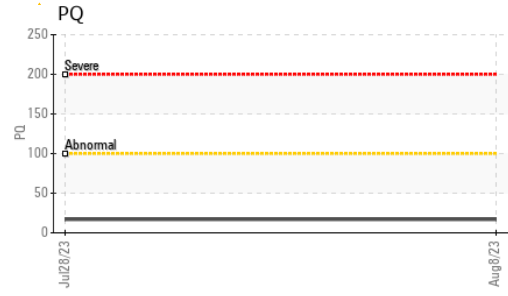
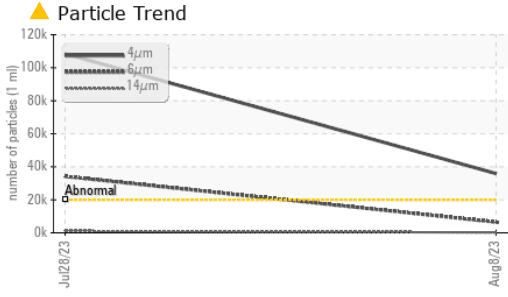
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 35904	▲ 108420	---
Particles >6µm	ASTM D7647	>5000	▲ 6482	▲ 34157	---
Particles >14µm	ASTM D7647	>640	169	▲ 1125	---
Particles >21µm	ASTM D7647	>160	15	97	---
Particles >38µm	ASTM D7647	>40	2	2	---
Particles >71µm	ASTM D7647	>10	0	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 22/20/15	▲ 24/22/17	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.00	0.97	---

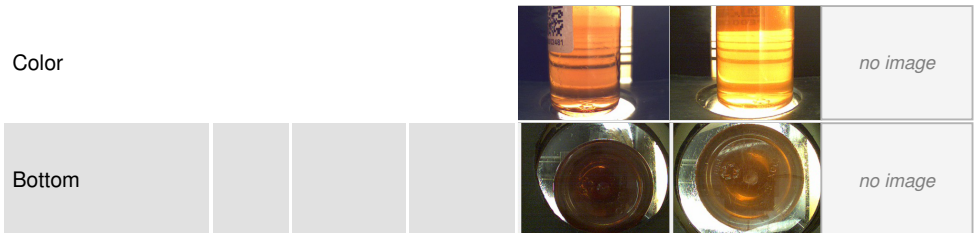
OIL ANALYSIS REPORT



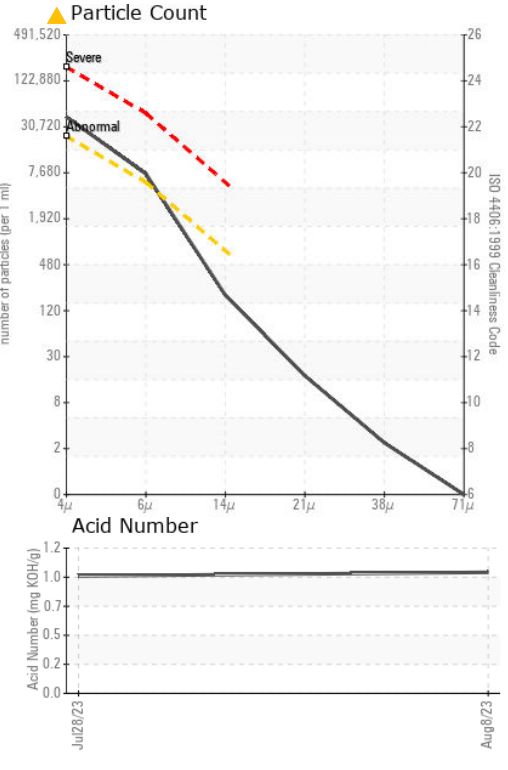
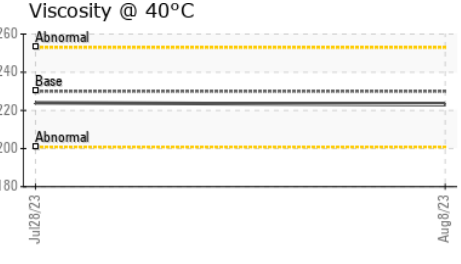
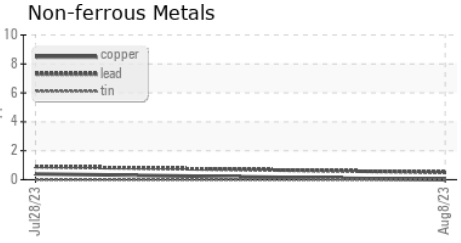
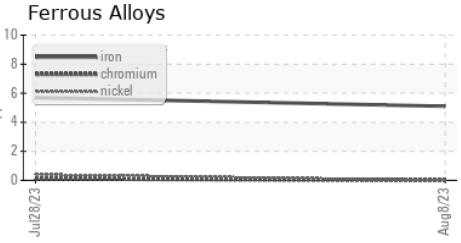
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	230	223	224

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0002481 **Received** : 15 Aug 2023
Lab Number : 05924764 **Diagnosed** : 16 Aug 2023
Unique Number : 10604711 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

MORNING STAR DAIRY
 801 FM 694
 DALHART, TX
 US 79022
 Contact: JOHN DEVRIES
 johndevries@gmail.com

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)