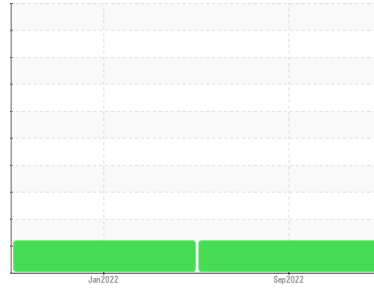


PROBLEM SUMMARY

Sample Rating Trend



ISO



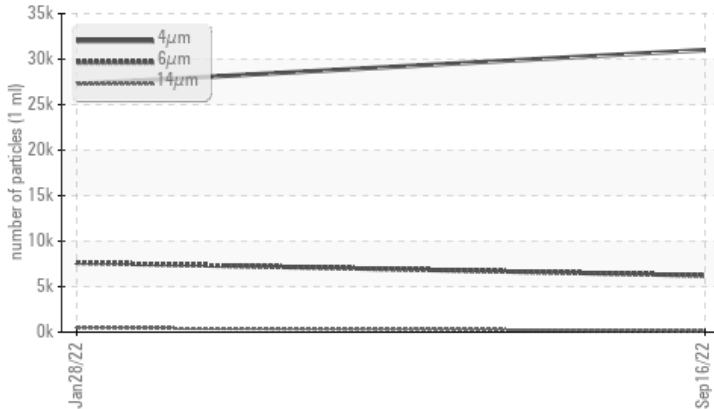
Machine Id
4490791 (S/N 1099)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	---
Particles >6µm	ASTM D7647	>1300	▲ 6227	▲ 7627	---
Particles >14µm	ASTM D7647	>80	▲ 152	▲ 465	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/20/14	▲ 20/16	---

Customer Id: PROWINNC
Sample No.: KCP46810
Lab Number: 05646633
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

28 Jan 2022 Diag: Angela Borella

ISO



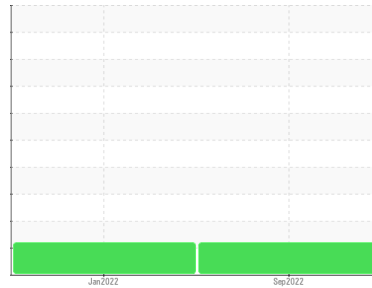
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
4490791 (S/N 1099)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates 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	history 1	history 2
Sample Number			KCP46810	KCP48748	---
Sample Date			16 Sep 2022	28 Jan 2022	---
Machine Age	hrs		50834	48673	---
Oil Age	hrs		2000	6000	---
Oil Changed			Not Changed	Changed	---
Sample Status			ABNORMAL	ABNORMAL	---

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	0	<1	---
Chromium	ppm	ASTM D5185m >10	0	0	---
Nickel	ppm	ASTM D5185m >3	0	0	---
Titanium	ppm	ASTM D5185m >3	0	0	---
Silver	ppm	ASTM D5185m >2	<1	<1	---
Aluminum	ppm	ASTM D5185m >10	0	0	---
Lead	ppm	ASTM D5185m >10	0	0	---
Copper	ppm	ASTM D5185m >50	21	4	---
Tin	ppm	ASTM D5185m >10	0	0	---
Antimony	ppm	ASTM D5185m	---	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	<1	---
Barium	ppm	ASTM D5185m 90	0	2	---
Molybdenum	ppm	ASTM D5185m	0	0	---
Manganese	ppm	ASTM D5185m	0	0	---
Magnesium	ppm	ASTM D5185m 90	0	3	---
Calcium	ppm	ASTM D5185m 2	2	<1	---
Phosphorus	ppm	ASTM D5185m	2	11	---
Zinc	ppm	ASTM D5185m	0	0	---
Sulfur	ppm	ASTM D5185m	19320	12713	---

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	<1	---
Sodium	ppm	ASTM D5185m	0	0	---
Potassium	ppm	ASTM D5185m >20	0	0	---
Water	%	ASTM D6304 >0.05	0.008	0.003	---
ppm Water	ppm	ASTM D6304 >500	85.4	34.0	---

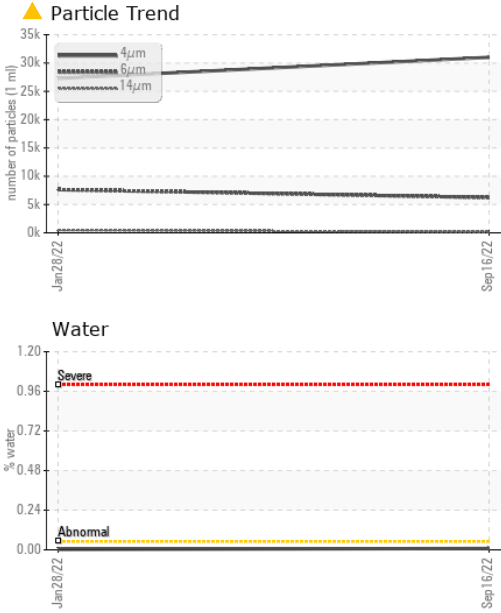
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		31000	27284	---
Particles >6µm	ASTM D7647 >1300		▲ 6227	▲ 7627	---
Particles >14µm	ASTM D7647 >80		▲ 152	▲ 465	---
Particles >21µm	ASTM D7647 >20		12	▲ 100	---
Particles >38µm	ASTM D7647 >4		2	3	---
Particles >71µm	ASTM D7647 >3		1	0	---
Oil Cleanliness	ISO 4406 (c) >--/17/13		▲ 22/20/14	▲ 20/16	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.45	0.40	---

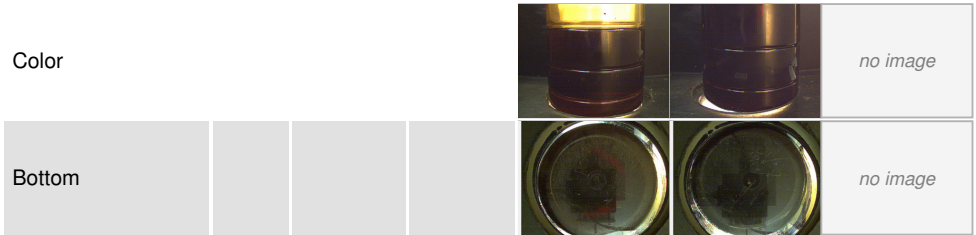
OIL ANALYSIS REPORT



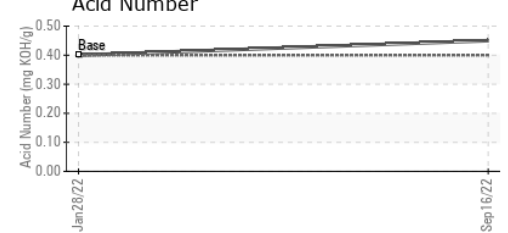
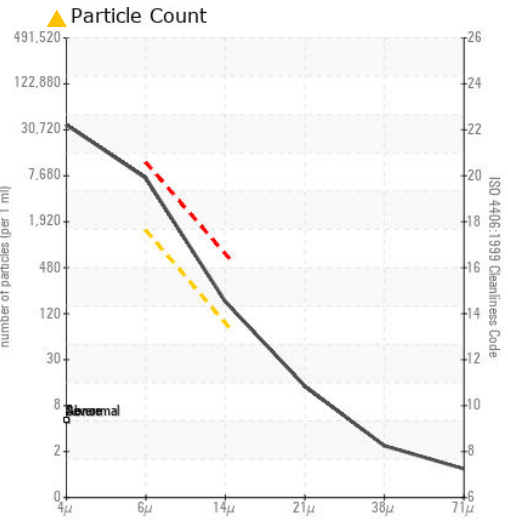
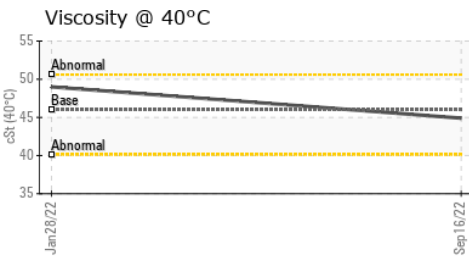
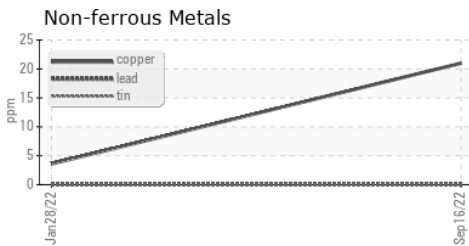
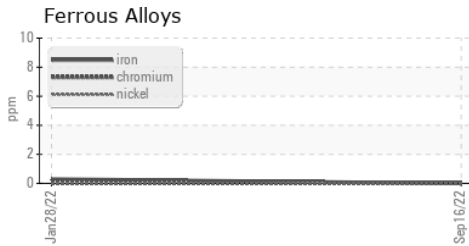
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.9	49.0

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP46810 **Received** : 20 Sep 2022
Lab Number : 05646633 **Diagnosed** : 22 Sep 2022
Unique Number : 10141172 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

PROGRESS RAIL SERVICES CORPORATION
 2950 TEMPLE SCHOOL RD
 WINSTON SALEM, NC
 USA 27107
 Contact: Service Manager

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)

T:
F: