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# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**7627785 (S/N 1787)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KCPA008530	KCPA005106	KCP48658
Sample Date		Client Info		23 Jan 2024	14 Aug 2023	08 Feb 2022
Machine Age	hrs	Client Info		8348	6710	2622
Oil Age	hrs	Client Info		0	0	2622
Filter Age	hrs	Client Info		0	0	2622
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	1	2	2
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

## CONTAMINATION

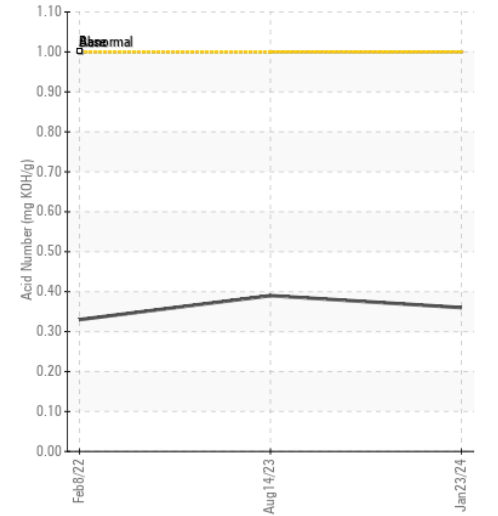
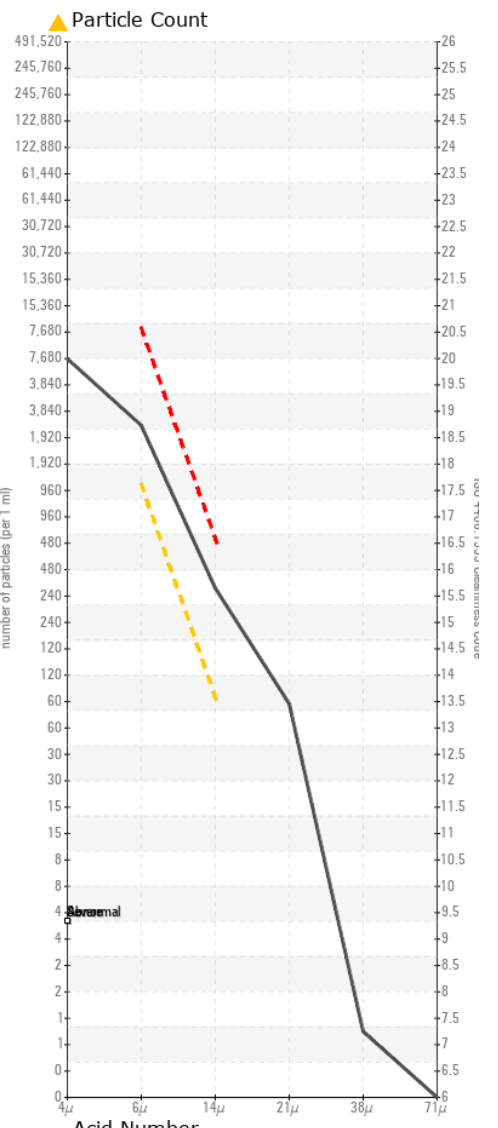
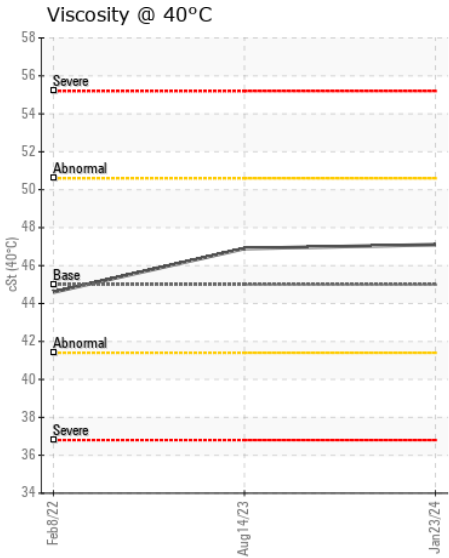
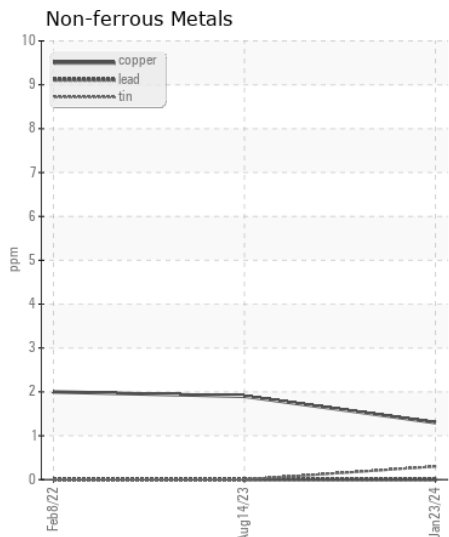
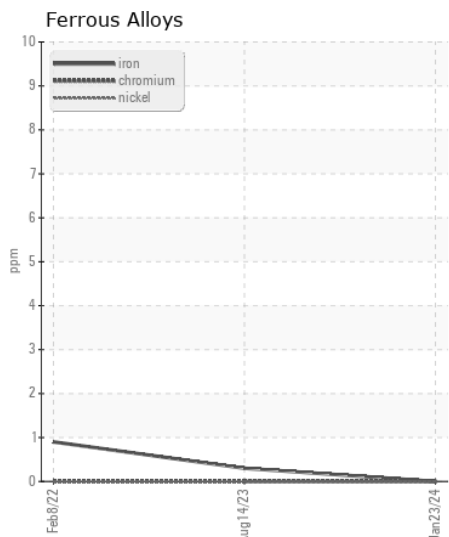
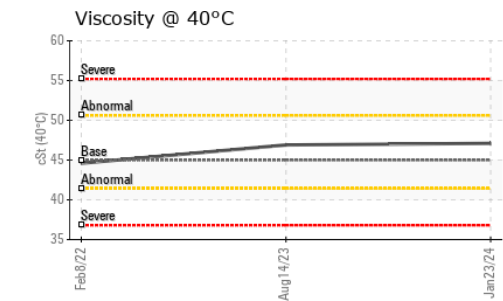
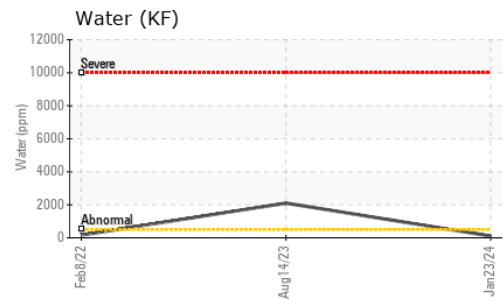
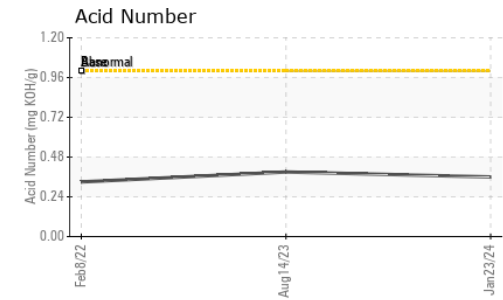
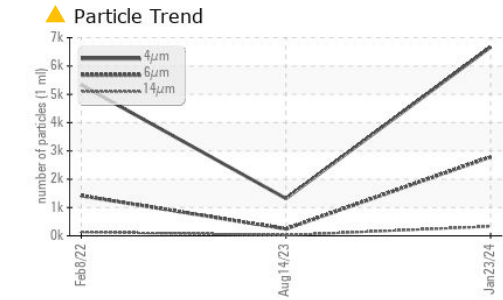
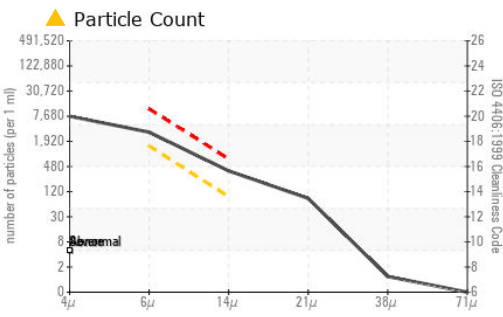
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	1	2	0
Water	%	ASTM D6304	>0.05	0.011	▲ 0.210	0.016
ppm Water	ppm	ASTM D6304	>500	110	▲ 2100	164.2
Particles >4µm		ASTM D7647		6668	1318	5334
Particles >6µm		ASTM D7647	>1300	▲ 2786	242	▲ 1416
Particles >14µm		ASTM D7647	>80	▲ 331	23	▲ 134
Particles >21µm		ASTM D7647	>20	▲ 73	4	28
Particles >38µm		ASTM D7647	>4	1	0	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	:-/17/13	▲ 20/19/16	18/15/12	▲ 18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	0.2%	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		13	2	14
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	90	31	30	4
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	100	79	42	64
Calcium	ppm	ASTM D5185m	0	0	<1	0
Phosphorus	ppm	ASTM D5185m	0	0	2	14
Zinc	ppm	ASTM D5185m	0	0	2	0
Sulfur	ppm	ASTM D5185m	23500	16812	19777	14965
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.36	0.39	0.33
Visc @ 40°C	cSt	ASTM D445	45	47.1	46.9	44.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA008530 **Received** : 31 Jan 2024  
**Lab Number** : 06075789 **Tested** : 01 Feb 2024  
**Unique Number** : 10857880 **Diagnosed** : 01 Feb 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**TESLA MOTOR**  
 450 E 52ND AVE  
 DENVER, CO  
 US 80216  
 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)