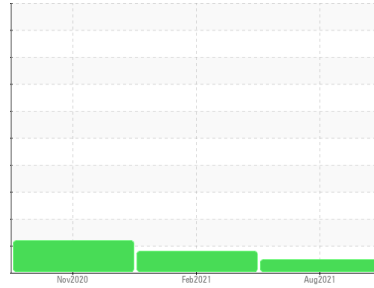




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**KAESER BSD 60 2722725 (S/N 1080)**

Component  
**Compressor**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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			<b>KC100459</b>	KC91413	KC91471
Sample Date	Client Info			<b>20 Aug 2021</b>	09 Feb 2021	09 Nov 2020
Machine Age	hrs Client Info			<b>82845</b>	81491	81166
Oil Age	hrs Client Info			<b>2163</b>	325	2333
Oil Changed	Client Info			<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>3</b>	<1	7
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

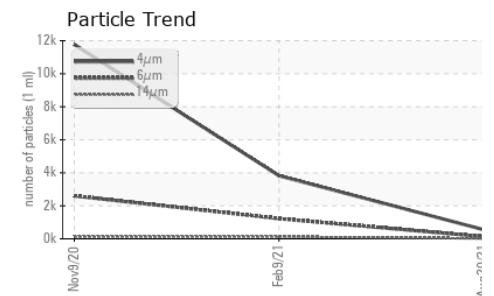
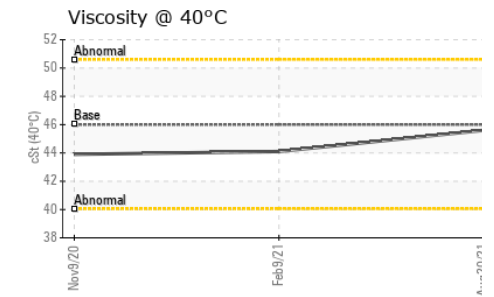
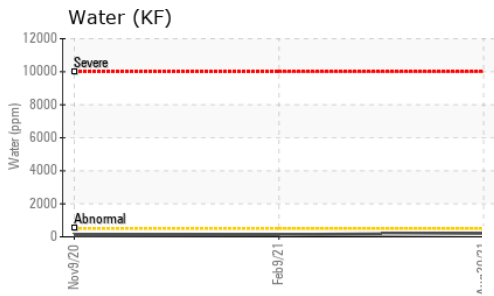
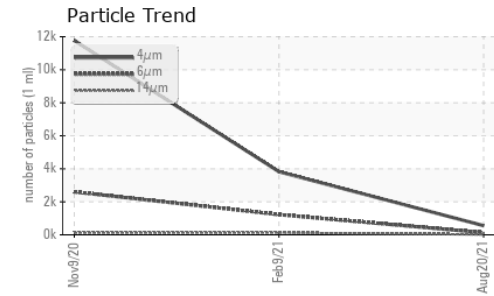
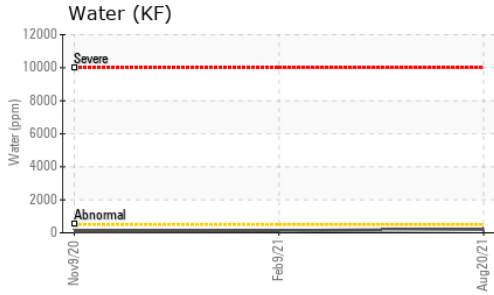
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>12</b>	11	0
Barium	ppm	ASTM D5185m	90	<b>0</b>	60	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	90	<b>26</b>	80	12
Calcium	ppm	ASTM D5185m	2	<b>0</b>	3	0
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	6	4
Zinc	ppm	ASTM D5185m		<b>1</b>	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>1</b>	1	8
Sodium	ppm	ASTM D5185m		<b>8</b>	14	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	<1
Water	%	ASTM D6304	>0.05	<b>0.021</b>	0.012	0.008
ppm Water	ppm	ASTM D6304	>500	<b>213.3</b>	125.1	87.6

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>554</b>	3823	11769
Particles >6µm		ASTM D7647	>1300	<b>132</b>	1224	▲ 2602
Particles >14µm		ASTM D7647	>80	<b>18</b>	▲ 128	▲ 124
Particles >21µm		ASTM D7647	>20	<b>6</b>	▲ 44	▲ 29
Particles >38µm		ASTM D7647	>4	<b>0</b>	4	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>14/11</b>	▲ 17/14	▲ 19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.308</b>	0.353	0.336

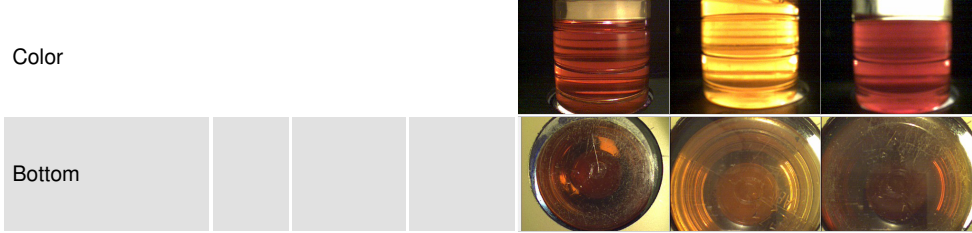
# OIL ANALYSIS REPORT



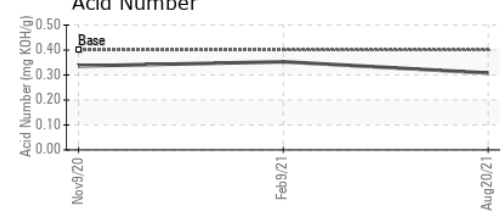
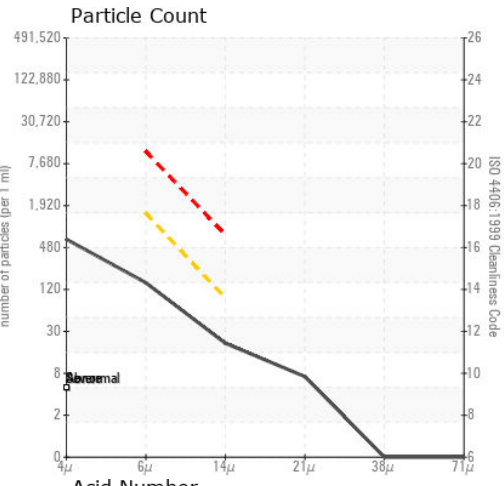
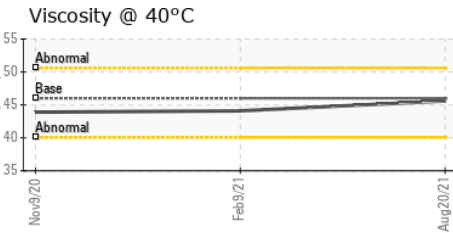
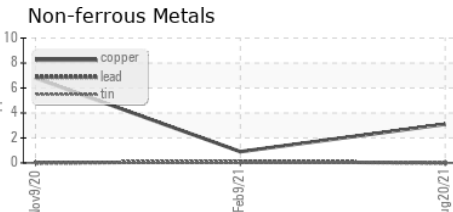
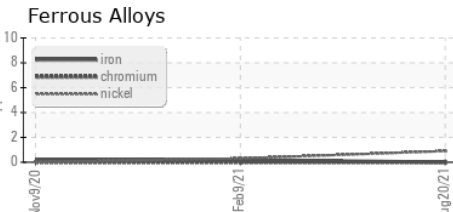
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	45.6	44.1	43.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : KC100459  
 Lab Number : 05335404  
 Unique Number : 9634402  
 Test Package : IND 2  
 Received : 25 Aug 2021  
 Tested : 26 Aug 2021  
 Diagnosed : 26 Aug 2021 - Jonathan Hester

**NORMAN NOBLE**  
 5340 AVION PKWY  
 HIGHLAND HEIGHTS, OH  
 US 44143  
 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)

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F: