

### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# 6394289 (S/N 1144)

Component Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

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

SAMPLE INFORM	<b>/IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA012489	KCP44872	
Sample Date		Client Info		09 May 2024	18 May 2022	
Machine Age	hrs	Client Info		22813	20315	
Oil Age	hrs	Client Info		0	12000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ATTENTION	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	<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	0	0	
Aluminum	ppm	ASTM D5185m	>10	<1	<1	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m	>50	3	11	
Tin	ppm	ASTM D5185m	>10	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	
Barium	ppm	ASTM D5185m	90	21	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m		<1	0	
Magnesium	ppm	ASTM D5185m	100	67	8	
Calcium	ppm	ASTM D5185m	0	2	0	
Phosphorus	ppm	ASTM D5185m	0	3	0	
Zinc	ppm	ASTM D5185m	0	18	80	
Sulfur	ppm	ASTM D5185m	23500	22966	16952	
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	<1	
Sodium	ppm	ASTM D5185m		18	2	
Potassium	ppm	ASTM D5185m	>20	2	0	
Water	%	ASTM D6304	>0.05	0.025	0.006	
ppm Water	ppm	ASTM D6304	>500	251	62.4	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		947	6776	
Particles >6µm		ASTM D7647	>1300	159	1755	
Particles >14µm		ASTM D7647	>80	7	137	
Particles >21µm		ASTM D7647	>20	1	28	
Particles >38µm		ASTM D7647	>4	0	3	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>/17/13	17/14/10	20/18/14	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.42	0.36	



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12000 <del>-</del>	Water (KF)		VISUAL		method	limit/base	current	history1	history2
10000-	Severe		White Metal	scalar	*Visual	NONE	NONE	VLITE	
			Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
(ppm) 4000			Precipitate	scalar	*Visual	NONE	NONE	NONE	
A000			Silt	scalar	*Visual	NONE	NONE	NONE	
2000-			Debris	scalar	*Visual	NONE	NONE	VLITE	
2000	Abnormal		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
0	May18,72	May9/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Mayl	May	Odor	scalar	*Visual	NORML	NORML	NORML	
	Particle Trend		Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
7k			Free Water	scalar	*Visual		NEG	NEG	
(10 6k -			FLUID PROPER	TIES	method	limit/base	current	history1	history2
of particles (1 - 3k - 2k -			Visc @ 40°C	cSt	ASTM D445	45	47.0	47.7	
o Jaquin 2k •	Automatication		SAMPLE IMAGE	S	method	limit/base	current	history1	history2
- 1k - 0k -	May19/22	And	Color						no image
12000 10000	Water (KF)		Bottom						no image
(ppm) 4000 - 4000			GRAPHS						
≥ <sub>4000</sub> .			Ferrous Alloys				Particle Count		1.227
2000-	Abnormal		10 iron			491,520	ľ		1 <sup>26</sup>
0		5	o - chromium			122,880	-		-24
	May18/22	c. a				30,720			22
	M	4	2			30,720	1		-22
	Viscosity @ 40°C		0			7,680	- <b>`</b>		-20 2
60	Courses		May18/22			May9/24 [per 1 m]]			18 5
55-	Severe		May			Ma les (pe			+20 50 4 4 1 6 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ç 50-	Abnomal 0-		Non-ferrous Meta	ls		ottred 480			-16 g
() 50 - () 10 - () () 10 - ()	Base		copper			+2/6/ac 1, 201			-14 5
40-	Abnormal		10 - tin						
	Severe					30			+12 "
35	- 22	Ϋ́ς.	5			- 8	Bibrevernal		-10
	May18/22	- W	0 S				,Ï		-8
			May18/22			May9/24			T <sup>0</sup>
7k <del>-</del>	Particle Trend					2 (	4μ 6μ	14µ 21µ	38µ 71µ
	4µm		Viscosity @ 40°C			1.20	Acid Number		
of particles (1 m) + + + + + + + + + + + + + + + + + + +	14μm		55 Severe			() () () () () () () () () () () () () (	Basermal		
sajot 4k -		00	50 - Abnormal			٥.72 ٤0.72			
ed jo 3k -		cSt (40°C)	45 - Base			-e 0.48	3		
Jaquinu 14			40			a 0.48 a 0.24 PO 0.24			
1.6		The set of the local data	35 Severe						
0k -	5/22	Υ <sup>ν</sup>	May18/22			May9/24	May18/22		May9/24
	May18,22	A	Ma			M	M		W
	Certificate L2367 Test To discuss this samp * - Denotes test meth	ple No. :   Number :   ue Number :   Package :   ple report, cubods that and		Rece Teste Diagr sts: KF, F vice at 1-8	ived : 20 ed : 22 nosed : 22 PrtCount ) 800-237-1369 ope of accred	0 May 2024 2 May 2024 May 2024 - Jonat 9. ditation.		5325 H Si Contact: DELME delmer.johnson@	

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