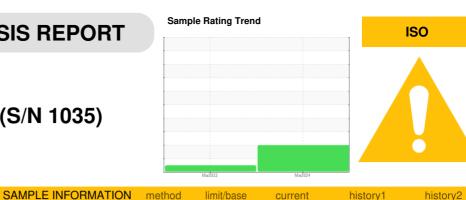


## **OIL ANALYSIS REPORT**



## KAESER CSD 100 7683553 (S/N 1035) Component

Compressor

### KAESER SIGMA (OEM) M-460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Oil and 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 INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA014958	KCP42033	
Sample Date		Client Info		13 Mar 2024	11 Mar 2022	
Machine Age	hrs	Client Info		10486	2191	
Oil Age	hrs	Client Info		0	2191	
Oil Changed		Client Info		Changed	Changed	
Sample Status				ABNORMAL	NORMAL	
	_	and the state	11			history O
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	1	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>3	<1	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	6	2	
Tin	ppm	ASTM D5185m	>10	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	0	0	0	
Barium	ppm	ASTM D5185m	90	4	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m	Ū	<1	<1	
Magnesium	ppm	ASTM D5185m	100	40	67	
Calcium	ppm	ASTM D5185m	0	0	1	
Phosphorus	ppm	ASTM D5185m	0	0	6	
Zinc	ppm	ASTM D5185m	0	6	6	
Sulfur	ppm	ASTM D5185m	23500	25303	15578	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon Sodium	ppm		>25	1	<1 14	
	ppm	ASTM D5185m	00	13		
Potassium	ppm	ASTM D5185m	>20	2	4	
Water	%	ASTM D6304	>0.05	0.013	0.016	
ppm Water	ppm	ASTM D6304	>500	130	169.8	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		20884	6887	
Particles >6µm		ASTM D7647	>1300	<u> </u>	512	
Particles >14µm		ASTM D7647	>80	<u> </u>	24	
Particles >21µm		ASTM D7647	>20	<u> </u>	7	
Particles >38µm		ASTM D7647	>4	<mark>/</mark> 8	0	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>/17/13	<b>A</b> 22/20/17	16/12	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.42	0.40	
( )	0 - 0					



# **OIL ANALYSIS REPORT**

current

NORML

NORML

current

current

Particle Count

Acid Number

history1

NONE

NONE NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

47.7

history1

history1

history2

history2

history2

no image

no image

0SI

0 4406:1999 Cle

Mar13/24

38,4

**BLUE LINE TRANSFER INC** 

SOUTH SAN FRANCISCO, CA

500 E JAMIE CT

US 94080 Contact: G. COUTO gcouto@ssfscavenger.com

T:

F:

21µ

25k -	Particle Trend			VISUAL		method	limit/	base	curre
			V	Vhite Metal	scalar	*Visual	NONE	-	NONE
(m 20k -		Concernant I	Y	ellow Metal	scalar	*Visual	NONE		NONE
number of particles (1 12k				Precipitate	scalar	*Visual	NONE		NONE
jo 10k -				Silt	scalar	*Visual	NONE		NONE
quine 5k -			D	ebris	scalar	*Visual	NONE		LIGHT
0k -				and/Dirt	scalar	*Visual	NONE		NONE
UK -	1/22	3/24		ppearance	scalar	*Visual	NORN		NORM
	Mari 1/22	Mar13/24		)dor	scalar	*Visual	NORM	ЛL	NORM
			E	mulsified Water	scalar	*Visual	>0.05		NEG
12000-	Water (KF)		F	ree Water	scalar	*Visual			NEG
10000.	Severe					mathad	limit/	baaa	0.1.184
8000 ق			、	FLUID PROPERTI				base	Curre
(ppm)			V	/isc @ 40°C	cSt	ASTM D445	45		48.1
≤ 4000. 2000-				SAMPLE IMAGES		method	limit/	base	curre
2000-	Abnormal								
	Mar11/22	Mar13/24	C	Color					
	Mai	Mar							
	Acid Number								
1.20	<u>Bbseo</u> rmal		E	Bottom					
(B),0.96 Winnber (mg KOH/G) 0.48 0.24	4								CCC -
BE 0.72									
Jaquin 0.48 -				GRAPHS					
N Pio 0 24			10-	Ferrous Alloys				491,520	Particle
			.0	iron					
0.00	722 -	YC	E 6.	nickel				122,880-	
	Mar11/22	NC C PTT W	udd 4.					30,720	
		-	2.					3.000	
12000	Water (KF)		0.	722			24	7,680- Ē	
10000.	Severe			Mar11/2			Mar13/24	1,920-	
0000				≥ Non-ferrous Metals			N.	480.	
(ppm) .			10-					pd in	
≜ 4000.			8.	copper				120	
2000 -			mqq 4					≝ 30-	
0-	Abnormal		- 4. 2					P	
	Mar11/22	VC/CF-	2· 0.					<u>ن</u> م	Sibreaemal
	a N	M.	5.	1/22			3/24	2-	
	Viscosity @ 40°C			Marl			Mar13/24	0.	
60-				Viscosity @ 40°C				4	Acid Nu
55-	Severe		60.	Severe				₿ <sup>1.20</sup>	Basermal
ç 50 ·	Abnormal		55. Ciro	Abnormal				d KOH/g) g KOH/g)	
(0.00) tS3 (45.	Base		(0-05) 150 -	Base				bu) 0.72	
	Abnormal			Abnormal				- 0.48 N 0.24	
40.	Severe		35.	Severe				Pipe 0.24 V 0.00	
35-	22 + 52	VC		11/22			Mar13/24 -		11/22
	Aar11/	101-1		Marl			Marl		Marl
	≥ HTHU/ISBIEN A Labor	atory	· \\/	earCheck USA - 501	Madico	n Ave Carv		7512	
		le No.		PA014958	Recei		, NC 27 8 Mar 20		
		lumber			Teste	<b>d</b> :19	Mar 2	024	
Æ		Number			Diagn		Mar 2024	- Jonath	an Hester
	Certificate L2367 Test P To discuss this sample			D 2 (Additional Test			2		
<b>S</b> 0	* - Denotes test metho								
œ.¥	Statements of conform							cision r	ule (JCC
						-			

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)