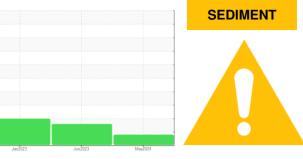


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

2623037 (S/N 1078)

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of visible silt present in the sample.

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		KCPA012401	KCPA005173	KCP54650
Sample Date		Client Info		10 May 2024	28 Jun 2023	22 Jan 2023
Machine Age	hrs	Client Info		109284	103928	101222
Oil Age	hrs	Client Info		2579	0	3000
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	1	<1	0
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	<1	<1	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	0
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	2	2	4
Tin	ppm	ASTM D5185m	>10	_ <1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	90	35	0	12
Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	100	38	7	9
Calcium	ppm	ASTM D5185m	0	6	0	0
Phosphorus	ppm	ASTM D5185m	0	4	0	5
Zinc	ppm	ASTM D5185m	0	3	0	1
Sulfur	ppm	ASTM D5185m	23500	22260	18931	20079
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	21	6	24
Sodium	ppm	ASTM D5185m		14	2	3
Potassium	ppm	ASTM D5185m	>20	5	<1	0
Water	%	ASTM D6304	>0.05	0.013	0.009	0.006
ppm Water	ppm	ASTM D6304	>500	133	92.5	65.2
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647			18565	17316
Particles >6µm		ASTM D7647	>1300		▲ 7043	6 164
Particles >14µm		ASTM D7647	>80		1 002	5 66
Particles >21µm		ASTM D7647	>20		1 99	<u> </u>
Particles >38µm		ASTM D7647	>4		2	<u> </u>
Particles >71µm		ASTM D7647	>3		0	0
		ISO 4406 (c)	>/17/13		A 21/20/17	21/20/16
Oil Cleanliness		130 4400 (C)	> /11/10			
Oil Cleanliness FLUID DEGRADA		method	limit/base	current	history1	history2

Contact/Location: J. PLANTZ - PACMOD Page 1 of 2



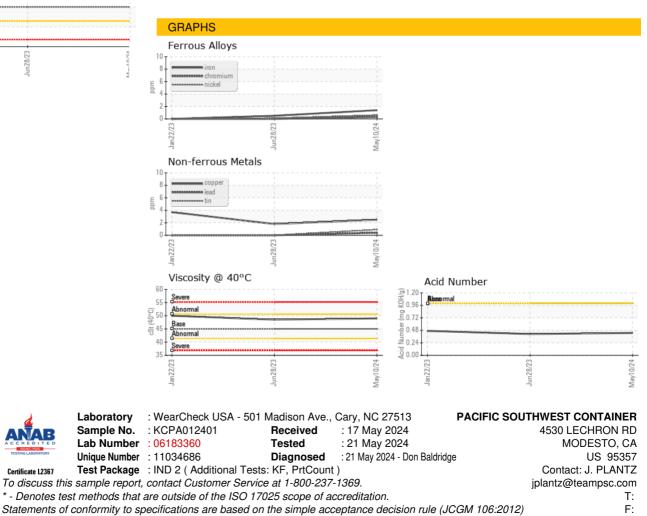
OIL ANALYSIS REPORT

	12000 -	Water (KF)		
	10000.	Severe		
(m	8000-			
Water (ppm)	6000-			
N	4000.			
	2000	Abnormal		
	0.	Jan 22/23	Jun28/23 -	May10/24
	12000 -	Water (KF)		
	10000.	Severe		
(mo	8000.			
Water (ppm)	6000-			
3	4000.			
	2000	Abnormal		
	0-	Jan 22/23 -	Jun28/23 -	May10/24 -
	60-	Viscosity @ 40°C		
	55-	Severe		
		Abnormal		
	(0.04) tso 45	Base		
	40.	Abnormal		
	35-	Severe		
	- 60	Jan22/23	Jun28/23 -	₩CU1:

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	A MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	49.0	48.5	50.0
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color				. 0.		
Datter					1	

Cole solar

Bottom



Contact/Location: J. PLANTZ - PACMOD