

Sample Rating Trend

ISO



Machine Id **1033** Component **Compressor** Fluid **KAESER SIGMA (OEM) S-460 (--- QTS)**

DIAGNOSIS

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.

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.

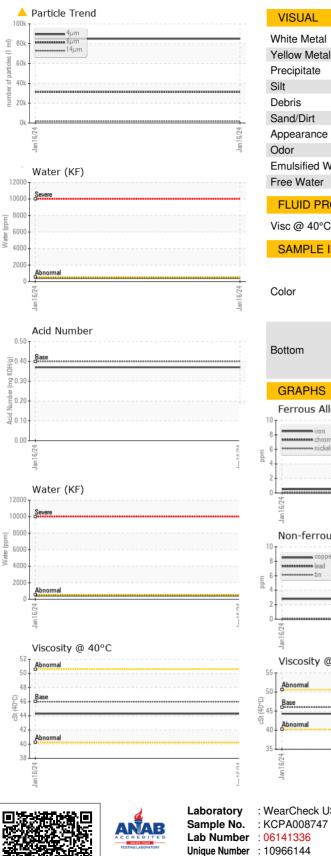
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 90 0	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 1000 Oil Age hrs Client Info 0 Oil Changed Client Info N/A Sample Status Client Info N/A WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05185m >50 <1	Sample Number		Client Info		KCPA008747		
Oil Age hrs Client Info 0 Oil Changed Client Info N/A Sample Status Imit/base current history1 WEAR METALS method limit/base current history1 Chromium ppm ASTM 05185m >10 0 Nickel ppm ASTM 05185m >3 0 Aluminum ppm ASTM 05185m >10 0 Aluminum ppm ASTM 05185m >10 0 Aduminum ppm ASTM 05185m >10 0 Adadium ppm ASTM 05185m >10 0 ADDITIVES method limit/base current history1 history1 Maganesium ppm ASTM 05185m 0 Adatium	Sample Date		Client Info		16 Jan 2024		
Oil Changed Client Info N/A WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 <1 Othornium ppm ASTM D5185m >50 <1 Nickel ppm ASTM D5185m >3 0 Nickel ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >10 0 Cadmium ppm ASTM D5185m >10 0 ADDITIVES method limit/base current history1 history2 Garon ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Maganesium	Machine Age	hrs	Client Info		1000		
Oil Changed Client Info N/A Sample Status Image of the status I	Oil Age	hrs	Client Info		0		
Sample Status Image ABNORMAL WEAR METALS method limit/base current history1 history1 tron ppm ASTM D5185m >50 <1	-		Client Info				
WEAR METALS method limit/base current history1 history1 iron ppm ASTM D5185m >50 <1	ů.				ABNORMAL		
ron ppm ASTM D5185m >50 <1	-	_	mathad	limit/bass	ourroat	historyd	biotom/0
Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 10 0 ADDITIVES method limit/base current history1 history1 Baron ppm ASTM D5185m 90 0 Magnaese ppm ASTM D5185m 90 35 Magnaese ppm ASTM D5185m 90 35 Solifor ppm ASTM D5185m							
Nickel ppm ASTM D5185m >3 0 Titanium ppm ASTM D5185m >3 0 Sliver ppm ASTM D5185m >10 0 Aluminum ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 ADDITIVES method limit/base current history1 history1 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 2 0	-						
Titanium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 90 0 Maganese ppm ASTM D5185m 90 35 Maganese ppm ASTM D5185m 2 0 Maganese ppm ASTM D5185m 21608 Silfur ppm ASTM D5185m <t< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td></t<>					-		
Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 3 Vanadium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 90 0 Magnesium ppm ASTM D5185m 90 35 Vangnesium ppm ASTM D5185m 90 35 Valgensium ppm ASTM D5185m 0					-		
Atuminum ppm ASTM D5185m >10 0 Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 3 Vanadium ppm ASTM D5185m >10 0 Addium ppm ASTM D5185m >10 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 90 0 Magnaese ppm ASTM D5185m 90 35 Magnaese ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 2 0	Titanium	ppm	ASTM D5185m	>3	0		
Lead ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >50 3 Vanadium ppm ASTM D5185m >10 0 ADDITIVES method limil/base current history1 history2 Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0	Silver	ppm	ASTM D5185m	>2	0		
Copper ppm ASTM D5185m >50 3 Tin ppm ASTM D5185m >10 0 Adandium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 Sodium ppm ASTM D51	Aluminum	ppm	ASTM D5185m	>10	0		
Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Magnese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Magnesium ppm ASTM D5185m 20 3 Sulfur ppm ASTM D5185m 21608 Sulfur ppm ASTM D5185m >20 3 Sulfur ppm ASTM D5185m >20 3 -	Lead	ppm	ASTM D5185m	>10	0		
Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 90 0 Magnese ppm ASTM D5185m 90 35 Magnese ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 Sodium ppm ASTM D5185m >20 3	Copper	ppm	ASTM D5185m	>50	3		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 90 0 Manganese ppm ASTM D5185m 0 Vagnesium ppm ASTM D5185m 0 35 Calcium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 Soliton ppm ASTM D5185m 21608 Soliton ppm ASTM D5185m >20 3 Soliton ppm ASTM D5185m >20 3	Tin	ppm	ASTM D5185m	>10	0		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 90 0 Manganese ppm ASTM D5185m 0 Vagnesium ppm ASTM D5185m 0 35 Calcium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 Soliton ppm ASTM D5185m 21608 Soliton ppm ASTM D5185m >20 3 Soliton ppm ASTM D5185m >20 3	Vanadium	ppm	ASTM D5185m		0		
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 90 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 90 35 Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Silicon ppm ASTM D5185m 21608 Sodium ppm ASTM D5185m >25 <1	Cadmium	ppm	ASTM D5185m		0		
Barium ppm ASTM D5185m 90 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 90 35 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m >25 <1 Sodium ppm ASTM D5185m >20 3 Sodium ppm ASTM D5185m >20 3 Potassium ppm ASTM D5185m >20 31277 <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 90 35 Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 2 0 Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 8 Sulfur ppm ASTM D5185m 21608 Sodium ppm ASTM D5185m >25 <1	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 8 Sulfur ppm ASTM D5185m 21608 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 <1	Barium	ppm	ASTM D5185m	90	0		
Marganese ppm ASTM D5185m <1	Molybdenum	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 90 35 Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1			ASTM D5185m		<1		
Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m 0 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 21608 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Vagnesium		ASTM D5185m	90	35		
PhosphorusppmASTM D5185m0ZincppmASTM D5185m8SulfurppmASTM D5185m21608CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	-		ASTM D5185m	2	0		
ZincppmASTM D5185m8SulfurppmASTM D5185m21608CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	Phosphorus						
SulfurppmASTM D5185m21608CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1					-		
Silicon ppm ASTM D5185m >25 <1 Sodium ppm ASTM D5185m 16 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 >0.05 0.042 oppm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 849999 Particles >6µm ASTM D7647 >1300 31277 Particles >1µm ASTM D7647 >80 1822 Particles >1µm ASTM D7647 >20 270 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 <	-				-		
Sodium ppm ASTM D5185m 16 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 >0.05 0.042 ppm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 849999 Particles >6µm ASTM D7647 >1300 31277 Particles >6µm ASTM D7647 >80 1822 Particles >14µm ASTM D7647 >20 270 Particles >21µm ASTM D7647 >4 2 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil	CONTAMINANTS	6	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 16 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 >0.05 0.042 opm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 84999 Particles >6µm ASTM D7647 >1300 31277 Particles >14µm ASTM D7647 >80 1822 Particles >14µm ASTM D7647 >20 270 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 <td>Silicon</td> <td>maa</td> <td>ASTM D5185m</td> <td>>25</td> <td><1</td> <td></td> <td></td>	Silicon	maa	ASTM D5185m	>25	<1		
Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 >0.05 0.042 oppm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 84999 Particles >6µm ASTM D7647 >1300 31277 Particles >14µm ASTM D7647 >80 1822 Particles >14µm ASTM D7647 >20 270 Particles >14µm ASTM D7647 >4 2 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 FLUID DEGRADATION method limit/base current hi	Sodium						
Water % ASTM D6304 >0.05 0.042 opm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 84999				>20			
oppm Water ppm ASTM D6304 >500 428 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 S4999 Particles >6µm ASTM D7647 >1300 31277 Particles >6µm ASTM D7647 >80 1822 Particles >14µm ASTM D7647 >20 270 Particles >21µm ASTM D7647 >4 2 Particles >38µm ASTM D7647 >4 2 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 FLUID DEGRADATION method limit/base current history1 history2					-		
Particles >4μm ASTM D7647 84999 Particles >6μm ASTM D7647 >1300 31277 Particles >14μm ASTM D7647 >80 1822 Particles >14μm ASTM D7647 >20 270 Particles >21μm ASTM D7647 >20 270 Particles >38μm ASTM D7647 >4 2 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 FLUID DEGRADATION method limit/base current history1 history2							
Particles >4µm ASTM D7647 84999 Particles >6µm ASTM D7647 >1300 31277 Particles >14µm ASTM D7647 >80 1822 Particles >14µm ASTM D7647 >20 270 Particles >21µm ASTM D7647 >20 270 Particles >38µm ASTM D7647 >4 2 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN		method	limit/base	current	history1	history2
Particles >6μm ASTM D7647 >1300 ▲ 31277 Particles >14μm ASTM D7647 >80 ▲ 1822 Particles >21μm ASTM D7647 >20 ▲ 270 Particles >38μm ASTM D7647 >4 2 Particles >38μm ASTM D7647 >4 2 Particles >71μm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 24/22/18 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		84999		
Particles >14μm ASTM D7647 >80 ▲ 1822 Particles >21μm ASTM D7647 >20 ▲ 270 Particles >38μm ASTM D7647 >4 2 Particles >38μm ASTM D7647 >4 2 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 24/22/18 FLUID DEGRADATION method limit/base current history1 history2	•		ASTM D7647	>1300			
Particles >21μm ASTM D7647 >20 270 Particles >38μm ASTM D7647 >4 2 Particles >38μm ASTM D7647 >4 2 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 24/22/18 FLUID DEGRADATION method limit/base current history1 history2							
Particles >38μm ASTM D7647 >4 2 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 24/22/18 FLUID DEGRADATION method limit/base current history1 history2							
Particles >71µm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 24/22/18 FLUID DEGRADATION method limit/base current history1 history2							
Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 24/22/18 FLUID DEGRADATION method limit/base current history1 history2	•						
FLUID DEGRADATION method limit/base current history1 history2							
		TION	()				
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.37							
						nistory i	nistory2

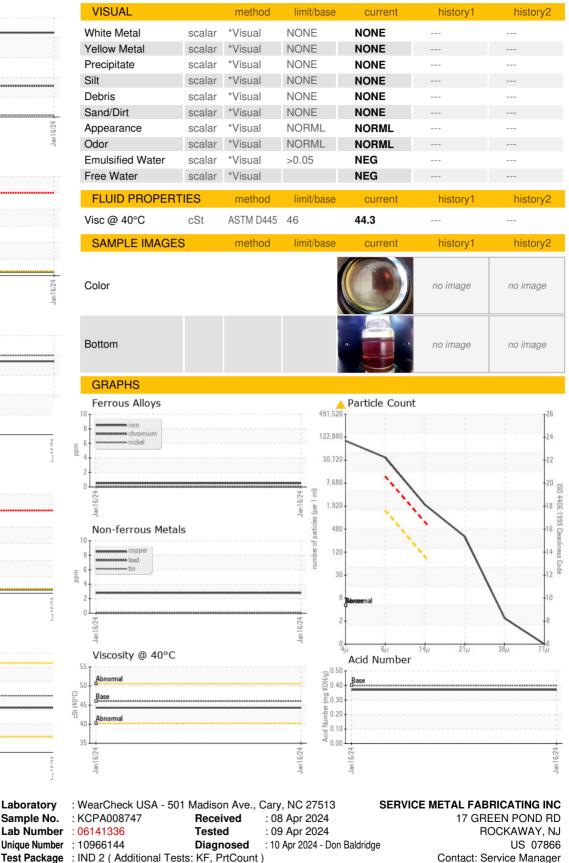
Contact/Location: Service Manager - SERROC Page 1 of 2



Built for a lifetime

OIL ANALYSIS REPORT





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)

Certificate 12367

Contact/Location: Service Manager - SERROC Page 2 of 2

T:

F: