

# **PROBLEM SUMMARY**



### Machine Id 8087973 (S/N 1207) Component

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

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE	ABNORMAL	ATTENTION	
Water	%	ASTM D6304	>0.05	<b>e</b> 82.9	<b>0</b> .151	0.022	
ppm Water	ppm	ASTM D6304	>500	<b>e</b> 829000	🔺 1510	225.0	
Emulsified Water	scalar	*Visual	>0.05	• 0.2%	0.2%	NEG	

Customer Id: SPOBYR Sample No.: KC06007371 Lab Number: 06007371 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u> There are no recommended actions for this sample.

### HISTORICAL DIAGNOSIS



### 16 May 2023 Diag: Jonathan Hester

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drainoff procedure for this component. We recommend an early resample in 500 hours to monitor this condition.All component wear rates are normal. Appearance is hazy. Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 02 Feb 2023 Diag: Don Baldridge

30 Sep 2022 Diag: Jonathan Hester

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WATER



We recommend you service the filters on this component. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id 8087973 (S/N 1207) Component

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

### DIAGNOSIS

### Recommendation

We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Insufficient sample was received to conduct all the routine laboratory tests. Excessive water present.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

Sample Number     Client Info     KC06007371     KC111562     KC106394       Sample Date     Client Info     09 Nov 2023     16 May 2023     02 Feb 2023       Machine Age     hrs     Client Info     0     522     456       Oil Anged     Tro     Client Info     N/A     Not Changed     Not Changed       Sample Status     Immethod     Imitions     Current     History     History       Iron     ppm     ASTM 05185m     >50     0     1     <1       Chromium     ppm     ASTM 05185m     >3     <1     0     0       Nickel     ppm     ASTM 05185m     >2     0     <1     0       Aluminum     ppm     ASTM 05185m     >10     3     0     <1       Copper     ppm     ASTM 05185m     >10     3     0     <1       Copper     ppm     ASTM 05185m     >10     2     0     0       Caddum     ppm     ASTM 05185m     >10     2     0     0 <tr< th=""><th>SAMPLE INFORM</th><th>NATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></tr<>	SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Date     Client Info     09 Nov 2023     16 May 2023     02 Feb 2023       Machine Age     hrs     Client Info     0     522     456       Oil Age     hrs     Client Info     0     522     456       Oil Changed     Client Info     N/A     Not Changd     ATTENTION       WEAR METALS     method     Imit/base     current     History1     History2       Iron     ppm     ASTM D5185m     >50     0     1     <1       Ohromium     ppm     ASTM D5185m     >3     <1     0     0       Nickel     ppm     ASTM D5185m     >3     0     0     0       Aluminum     ppm     ASTM D5185m     >2     0     <1     0       Copper     ppm     ASTM D5185m     >10     3     0     <1     1     0       Vanadium     ppm     ASTM D5185m     >10     3     0     0     0       Caper     ppm     ASTM D5185m     0     2     0     <	Sample Number		Client Info		KC06007371	KC111562	KC106394
Machine Age     hrs     Client Info     697     522     456       Oil Age     hrs     Client Info     0     522     456       Oil Changed     Client Info     N/A     Not Changed     ATTENTION       Sample Status     n     n     imit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >50     0     1     <1     1       Chromium     ppm     ASTM D5185m     >50     0     0     0     0       Nickel     ppm     ASTM D5185m     >3     <1     0     0     0       Silver     ppm     ASTM D5185m     >3     0     <1     <1     0       Lead     ppm     ASTM D5185m     >10     -1     <1     0     0     0     0       Cadmium     ppm     ASTM D5185m     >10     -1     <1     0     1     <1     1     <1     1     1     1     1     1     1     1     1 <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>09 Nov 2023</th> <th>16 May 2023</th> <th>02 Feb 2023</th>	Sample Date		Client Info		09 Nov 2023	16 May 2023	02 Feb 2023
Oil Age     hrs     Client Info     0     522     456       Oil Changed     Client Info     N/A     Not Changd     Not Changd       Sample Status     rethod     Imit/base     current     history1     ATTONY2       Iron     ppm     ASTM 05185m     >50     0     1     <1       Chromium     ppm     ASTM 05185m     >3     <1     0     0       Nickel     ppm     ASTM 05185m     >3     0     0     0       Aluminum     ppm     ASTM 05185m     >2     0     <1     0       Aluminum     ppm     ASTM 05185m     >10     0     0     0       Copper     ppm     ASTM 05185m     >10     3     0     <1       Tin     ppm     ASTM 05185m     >10     3     0     0       Vanadium     ppm     ASTM 05185m     >10     0     0     0       Vanadium     ppm     ASTM 05185m     0     0     0     0	Machine Age	hrs	Client Info		697	522	456
Oil Changed Sample Status     Client Info     N/A SEVERE     Not Changd ABNORMAL     Not Changd ATTENTION       WEAR METALS     method     limit/base     current     History1     History2       Iron     ppm     ASTM D5185m     >50     0     1     <1       Chromium     ppm     ASTM D5185m     >30     0     0     0       Nickel     ppm     ASTM D5185m     >30     <1     0     0       Silver     ppm     ASTM D5185m     >30     0     <1     0       Lead     ppm     ASTM D5185m     >10     0     0     0       Vanadium     ppm     ASTM D5185m     >10     <1     <1     0       Vanadium     ppm     ASTM D5185m     >10     <1     <1     0       Vanadium     ppm     ASTM D5185m     0     0     0     0     0       Vanadium     ppm     ASTM D5185m     0     0     0     0     0       Vanadium     ppm     ASTM D5185m	Oil Age	hrs	Client Info		0	522	456
Sample Status     method     imil/base     current     Nistory1     ATTENTION       WEAR METALS     method     imil/base     current     history1     history2       Iron     ppm     ASTM D5185m     >50     0     1     <1       Chromium     ppm     ASTM D5185m     >3     <1     0     0       Nickel     ppm     ASTM D5185m     >3     0     0     0       Silver     ppm     ASTM D5185m     >2     0     <1     0       Auminum     ppm     ASTM D5185m     >10     0     0     0     0       Copper     ppm     ASTM D5185m     >50     19     1     <1     0       Vanadium     ppm     ASTM D5185m     0     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     2     0     0       Boron     ppm     ASTM D5185m     0     0     14     53       Molybdenum     ppm     ASTM D5185m	Oil Changed		Client Info		N/A	Not Changd	Not Changd
WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m<>50     0     1     <1       Chromium     ppm     ASTM D5185m<>10     0     0     0       Nickel     ppm     ASTM D5185m<>3     <1     0     0       Silver     ppm     ASTM D5185m<>3     0     0     0       Aluminum     ppm     ASTM D5185m<>10     0     0     0       Lead     ppm     ASTM D5185m<>10     3     0     <1     0       Copper     ppm     ASTM D5185m<>10     3     0     0     0       Vanadium     ppm     ASTM D5185m<     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       Boron     ppm     ASTM D5185m     0     0     0     0       Barium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm <td< th=""><th>Sample Status</th><th></th><th></th><th></th><th>SEVERE</th><th>ABNORMAL</th><th>ATTENTION</th></td<>	Sample Status				SEVERE	ABNORMAL	ATTENTION
Inclusion     matched     matched     matched     matched       Iron     ppm     ASTM D5185m     >50     0     1     <1       Chromium     ppm     ASTM D5185m     >3     0     0     0       Nickel     ppm     ASTM D5185m     >3     0     0     0       Silver     ppm     ASTM D5185m     >2     0     <1     0       Lead     ppm     ASTM D5185m     >10     0     0     0       Lead     ppm     ASTM D5185m     >10     3     0     <1     0       Vanadium     ppm     ASTM D5185m     >10     1     <1     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0     0       Boron     ppm     ASTM D5185m     0     2     0     0     0       Malydodenum     ppm     ASTM D5185m     0     2     14     1     1       Maganese     ppm     ASTM D	WEAR METALS		method	limit/base	current	history1	history2
Iron     ppm     ASTM D5185m     >50     0     1     <1	. WEAT METALS		methou		current	Thistory I	instory2
Chromum     ppm     ASIM Usitism     >10     0     0     0     0       Nickel     ppm     ASIM Usitism     >3     <1     0     0       Silver     ppm     ASIM Usitism     >3     0     0     0       Aluminum     ppm     ASIM Usitism     >2     0     <1     0       Lead     ppm     ASIM Usitism     >10     0     0     <1     1       Copper     ppm     ASIM Usitism     >10     <1     <1     1     <1       Tin     ppm     ASIM Usitism     >10     <1     <1     0     0     0       Vanadium     ppm     ASIM Usitism     0     2     0     0     0       Cadmium     ppm     ASIM Usitism     0     2     0     0     0       Aduminum     ppm     ASIM Usitism     0     2     0     0     0       Boron     ppm     ASIM Usitism     0     2     0     0 <t< th=""><th>Iron</th><th>ppm</th><th>ASTM D5185m</th><th>&gt;50</th><th>0</th><th>1</th><th>&lt;1</th></t<>	Iron	ppm	ASTM D5185m	>50	0	1	<1
Nickel     ppm     ASIM Ubitism     >3     <1	Chromium	ppm	ASTM D5185m	>10	0	0	0
Intanum     ppm     ASIM U5185m     >3     0     0     0     0       Silver     ppm     ASTM D5185m     >2     0     <1     0       Lead     ppm     ASTM D5185m     >10     3     0     <1       Copper     ppm     ASTM D5185m     >10     3     0     0       Vanadium     ppm     ASTM D5185m     >10     <1     <1     0       Vanadium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     2     0     0       ADDITIVES     method     imit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     2     0     0       Magnese     ppm     ASTM D5185m     100     22     440     1       Phosphorus     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     >20     2     0	Nickel	ppm	ASTM D5185m	>3	<1	0	0
Silver     ppm     ASIM D5185m     >22     0     <1	Titanium	ppm	ASTM D5185m	>3	0	0	0
Aluminum     ppm     ASTM D5185m     >10     0     0     0     0       Lead     ppm     ASTM D5185m     >10     3     0     <1       Copper     ppm     ASTM D5185m     >10     <1     <1     0       Vanadium     ppm     ASTM D5185m     >10     <1     <1     0       Vanadium     ppm     ASTM D5185m     >10     <1     <1     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     2     40     77       Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     2     3     <1<<<1       Silicon     ppm     ASTM D5185m     20     2 <th>Silver</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;2</th> <th>0</th> <th>&lt;1</th> <th>0</th>	Silver	ppm	ASTM D5185m	>2	0	<1	0
Lead     ppm     ASTM D5185m     >10     3     0     <1	Aluminum	ppm	ASTM D5185m	>10	0	0	0
Copper     ppm     ASTM D5185m     >50     19     1     <1	Lead	ppm	ASTM D5185m	>10	3	0	<1
Tin     ppm     ASTM D5185m     >10     <1	Copper	ppm	ASTM D5185m	>50	19	1	<1
Vanadium     ppm     ASTM D5185m     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     2     0     0       Barium     ppm     ASTM D5185m     0     0     14     53       Molybdenum     ppm     ASTM D5185m     0     0     0     0     0       Magnesium     ppm     ASTM D5185m     0     22     40     77       Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     2     14     1       Silicon     ppm     ASTM D5185m     0     23     83     0       Sodium     ppm     ASTM D5185m     >20     2     0     <1	Tin	ppm	ASTM D5185m	>10	<1	<1	0
Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     2     0     0       Barium     ppm     ASTM D5185m     90     0     14     53       Molybdenum     ppm     ASTM D5185m     0     0     0     0     0       Magnesium     ppm     ASTM D5185m     0     21     14     1       Phosphorus     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     2     14     1       Zinc     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     2     3     <1	Vanadium	ppm	ASTM D5185m		0	0	0
ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     2     0     0       Barium     ppm     ASTM D5185m     90     0     14     53       Molybdenum     ppm     ASTM D5185m     0     0     0     0       Magnesium     ppm     ASTM D5185m     100     22     400     77       Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     2     144     1       Phosphorus     ppm     ASTM D5185m     0     23     83     0       Silicon     ppm     ASTM D5185m     >25     3     <1     <1       Sodium     ppm     ASTM D5185m     >20     2     0     <1       Vater     %     ASTM D5185m     >20     3     0.151     0.022       ppm Water     ppm     ASTM D6304     >500     329000	Cadmium	ppm	ASTM D5185m		0	0	0
Boron     ppm     ASTM D5185m     0     2     0     0       Barium     ppm     ASTM D5185m     90     0     14     53       Molybdenum     ppm     ASTM D5185m     0     0     0     0       Magnesee     ppm     ASTM D5185m     100     22     400     77       Calcium     ppm     ASTM D5185m     100     22     400     77       Calcium     ppm     ASTM D5185m     0     4     1     1       Phosphorus     ppm     ASTM D5185m     0     4     3     0       Zinc     ppm     ASTM D5185m     0     23     83     0       Soliton     ppm     ASTM D5185m     >20     2     0     1       Soliton     ppm     ASTM D5185m     >20     2     0     1       Vater     %     ASTM D5185m     >20     2     0     1       Particles >4µm     ASTM D6304     >500     82.9000     1510     0.2	ADDITIVES		method	limit/base	current	history1	history2
Barium     ppm     ASTM D5185m     90     0     14     53       Molybdenum     ppm     ASTM D5185m     0     0     0     0       Manganese     ppm     ASTM D5185m     100     22     40     77       Calcium     ppm     ASTM D5185m     100     22     40     77       Calcium     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     23     83     0       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     2     0     <1       Vater     %     ASTM D5034     >0.05     82.9     0.1511     0.022       pm     Water     pm     ASTM D7647     ===     ===     45       Particles >4µm     ASTM D7647     \$1300     ===     ===	Boron	ppm	ASTM D5185m	0	2	0	0
Molybdenum     ppm     ASTM D5185m     0     0     0     0       Manganese     ppm     ASTM D5185m     100     22     400     77       Calcium     ppm     ASTM D5185m     100     22     400     77       Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     23     833     0       Silicon     ppm     ASTM D5185m     >25     3     <1     <1       Sodium     ppm     ASTM D5185m     >20     2     0     <1       Vater     %     ASTM D6185m     >20     2     0     <1       Water     %     ASTM D6304     >0.05     82.9     0.151     0.022       pm     Water     pm     ASTM D7647     >16      8591       Particles >4µm     ASTM D7647     >1300      45 <th>Barium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>90</th> <th>0</th> <th>14</th> <th>53</th>	Barium	ppm	ASTM D5185m	90	0	14	53
Manganese     ppm     ASTM D5185m     <1	Molybdenum	ppm	ASTM D5185m	0	0	0	0
Magnesium     ppm     ASTM D5185m     100     22     40     77       Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     23     83     0       CONTAMINANTS     method     imit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     3     <1     <1       Sodium     ppm     ASTM D5185m     >20     2     0     <1       Vater     %     ASTM D504     >0.05     82.9     0.151     0.022       ppm     ASTM D6304     >500     82.9000     1510     225.0       FLUID CLEANLINES     method     imit/base     current     history1     history2       Particles >4µm     ASTM D7647     >1300      45     1932       Particles >54µm     ASTM D7647     >20      45 <t< th=""><th>Manganese</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th></t<>	Manganese	ppm	ASTM D5185m		<1	<1	<1
Calcium     ppm     ASTM D5185m     0     2     14     1       Phosphorus     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     23     83     0       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     3     <1	Magnesium	ppm	ASTM D5185m	100	22	40	77
Phosphorus     ppm     ASTM D5185m     0     4     15     4       Zinc     ppm     ASTM D5185m     0     23     83     0       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     3     <1	Calcium	ppm	ASTM D5185m	0	2	14	1
Zinc     ppm     ASTM D5185m     0     23     83     0       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     3     <1     <1       Sodium     ppm     ASTM D5185m     >20     2     0     <1       Potassium     ppm     ASTM D5185m     >20     2     0     <1       Water     %     ASTM D50304     >0.05     82.9     0.151     0.022       ppm Water     ppm     ASTM D6304     >500     829000     1510     225.0       FLUID CLEANLINESS     method     limit/base     current     history1     history2       Particles >4µm     ASTM D7647     >1300      8591     1932       Particles >6µm     ASTM D7647     >80      45     1932       Particles >1µm     ASTM D7647     >20      6     1932       Particles >38µm     ASTM D7647       1 <th>Phosphorus</th> <th>ppm</th> <th>ASTM D5185m</th> <th>0</th> <th>4</th> <th>15</th> <th>4</th>	Phosphorus	ppm	ASTM D5185m	0	4	15	4
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>253<1<1SodiumppmASTM D5185m>2020<1PotassiumppmASTM D5185m>2020<1Water%ASTM D6304>0.0582.9▲ 0.1510.022ppm WaterppmASTM D6304>500829000▲ 1510225.0FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D764785911932Particles >6µmASTM D7647>130045Particles >14µmASTM D7647>2045Particles >21µmASTM D7647>201Particles >38µmASTM D7647>31Oil CleanlinessISO 4406 (c)>/17/134Oil CleanlinessISO 4406 (c)>/17/134Acid Number (AN)mg KOHgASTM D80451.00.260.34	Zinc	ppm	ASTM D5185m	0	23	83	0
Silicon   ppm   ASTM D5185m   >25   3   <1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium   ppm   ASTM D5185m   <1	Silicon	ppm	ASTM D5185m	>25	3	<1	<1
Potassium     ppm     ASTM D5185m     >20     2     0     <1	Sodium	ppm	ASTM D5185m	- 10	۔ د1	4	6
Water   %   ASTM D6304   >0.05   82.9   ▲   0.151   0.022     ppm Water   ppm   ASTM D6304   >500   829000   ▲   1510   225.0     FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4µm   ASTM D7647     8591     Particles >6µm   ASTM D7647   >1300     45     Particles >6µm   ASTM D7647   >80    45     Particles >14µm   ASTM D7647   >20    6     Particles >21µm   ASTM D7647   >4    1     Particles >38µm   ASTM D7647   >3    1     Particles >71µm   ASTM D7647   >3    1     Oil Cleanliness   ISO 4406 (c)   >/17/13    4   20/18/13     FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOHlg   ASTM D8045   1.0    0.26   0.34	Potassium	maa	ASTM D5185m	>20	2	0	<1
ppm Water     ppm     ASTM D6304     >500     829000     ▲ 1510     225.0       FLUID CLEANLINESS     method     limit/base     current     history1     history2       Particles >4µm     ASTM D7647       8591       Particles >6µm     ASTM D7647     >1300       8591       Particles >6µm     ASTM D7647     >1300       45       Particles >14µm     ASTM D7647     >20      45       Particles >21µm     ASTM D7647     >20      1       Particles >38µm     ASTM D7647     >4      1       Particles >71µm     ASTM D7647     >3      1       Oil Cleanliness     ISO 4406 (c)     >/17/13      4     20/18/13       FLUID DEGRADATION     method     limit/base     current     history1     history2       Acid Number (AN)     mg KOH/g     ASTM D8045     1.0      0.26     0.34	Water	%	ASTM D6304	>0.05	<b>82.9</b>	▲ 0.151	0.022
FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D76478591Particles >6µmASTM D7647>1300 $\wedge$ 1932Particles >14µmASTM D7647>8045Particles >21µmASTM D7647>2066Particles >38µmASTM D7647>41Particles >71µmASTM D7647>31Oil CleanlinessISO 4406 (c)>/17/13 $\wedge$ 20/18/13FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHlyASTM D80451.00.260.34	ppm Water	ppm	ASTM D6304	>500	829000	▲ 1510	225.0
Particles >4μm   ASTM D7647    8591     Particles >6μm   ASTM D7647   >1300    ▲ 1932     Particles >14μm   ASTM D7647   >80    45     Particles >14μm   ASTM D7647   >20    6     Particles >21μm   ASTM D7647   >20    6     Particles >38μm   ASTM D7647   >4    1     Particles >71μm   ASTM D7647   >3    1     Oil Cleanliness   ISO 4406 (c)   >/17/13    ▲ 20/18/13     FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOH/g   ASTM D8045   1.0    0.26   0.34	FLUID CLEANLIN	IFSS	method	limit/base	current	historv1	historv2
Particles >6µm   ASTM D7647   >1300 $\land$ 1932     Particles >14µm   ASTM D7647   >80 $\checkmark$ 1932     Particles >14µm   ASTM D7647   >80    45     Particles >21µm   ASTM D7647   >20    6     Particles >38µm   ASTM D7647   >4    1     Particles >71µm   ASTM D7647   >3    1     Oil Cleanliness   ISO 4406 (c)   >/17/13 $\checkmark$ 20/18/13     FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOHly   ASTM D8045   1.0    0.26   0.34	Particles \um		ASTM D7647				8591
Particles >0µm   ASTM D/047   >1000   Image: Constraint of the state of the s	Particles >4µm		ASTM D7647	×1200			A 1022
Particles >14μm   ASTM D7647   >80    45     Particles >21μm   ASTM D7647   >20    6     Particles >38μm   ASTM D7647   >4    1     Particles >71μm   ASTM D7647   >3    1     Oil Cleanliness   ISO 4406 (c)   >/17/13    ▲ 20/18/13     FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOH/g   ASTM D8045   1.0    0.26   0.34	Particles >0µm			>1300			1902
Particles >21μm   ASTM D/647   >20    6     Particles >38μm   ASTM D/647   >4    1     Particles >71μm   ASTM D/647   >3    1     Oil Cleanliness   ISO 4406 (c)   >/17/13    ▲ 20/18/13     FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOH/g   ASTM D8045   1.0    0.26   0.34	Particles > 14µm			>00			40
Particles > 30µm ASTM D7047 >4  1   Particles >71µm ASTM D7647 >3  1   Oil Cleanliness ISO 4406 (c) >/17/13  ▲ 20/18/13   FLUID DEGRADATION method limit/base current history1 history2   Acid Number (AN) mg KOH/g ASTM D8045 1.0  0.26 0.34	Particles >2 I $\mu$ III			>20			1
Coll Cleanliness     ISO 4406 (c)     >1/7/13      I       FLUID DEGRADATION     method     limit/base     current     history1     history2       Acid Number (AN)     mg KOH/g     ASTM D8045     1.0      0.26     0.34	Particles >30µm			>4			1
FLUID DEGRADATION method limit/base current history1 history2   Acid Number (AN) mg KOH/g ASTM D8045 1.0  0.26 0.34	$rarticles > 7 T \mu m$		ASTIVI D764/	>3			
FLUID DEGRADATION   method   limit/base   current   history1   history2     Acid Number (AN)   mg KOH/g   ASTM D8045   1.0    0.26   0.34	On Cleaniness		13U 4406 (C)	>/1//13			20/18/13
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.26 0.34	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0		0.26	0.34



# **OIL ANALYSIS REPORT**







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	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	A MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	🔺 HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	• 0.2%	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45		43.2	44.4
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						
Bottom				(-0-)		



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Contact/Location: Service Manager - SPOBYR