

OIL ANALYSIS REPORT

Sample Rating Trend

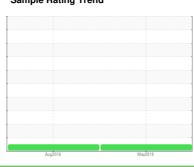
NORMAL

KM-3301 1ST STAGE GAS COMP

Component

Compressor

{not provided} (--- GAL)





DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORMATION				Aug2016	May2019		
Sample Date Client Info 26 May 2019 12 Aug 2016 Machine Age cyc Client Info 0 0 0	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age cyc Client Info 0 0	Sample Number		Client Info		PP	WC	
Oil Age Cyc Client Info N/A N/A N/A Oil Changed Client Info N/A N/A N/A Sample Status NORMAL NORMAL WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 46 11 Instruction Chromium ppm ASTM D8188/m >50 0 41 Chromium ppm ASTM D8188/m >50 0 0 Titanium ppm ASTM D8188/m >50 0 0 Aluminum ppm ASTM D8188/m >15 0 0 Aluminum ppm ASTM D8188/m >15 0 0 Aluminum ppm ASTM D8188/m >10 2 1 Copper ppm ASTM D8188/m >10 0 Vanadium ppm ASTM D8188/	Sample Date		Client Info		26 May 2019	12 Aug 2016	
Oil Changed Sample Status	Machine Age	сус	Client Info		0	0	
Sample Status	Oil Age	сус	Client Info		0	0	
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184¹ 46 11	Oil Changed		Client Info		N/A	N/A	
PQ	Sample Status				NORMAL	NORMAL	
Iron	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >5 0 0 Nickel ppm ASTM D5185(m) 0 0 Titanium ppm ASTM D5185(m) 0 0 Silver ppm ASTM D5185(m) >15 0 0 Aluminum ppm ASTM D5185(m) >65 <1 4 Copper ppm ASTM D5185(m) >665 <1 <1 Antimony ppm ASTM D5185(m) >10 2 1 Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 <1 Beryllium ppm ASTM D5185(m) 0 <1 Barium ppm <t< th=""><th>PQ</th><th></th><th>ASTM D8184*</th><th></th><th>46</th><th>11</th><th></th></t<>	PQ		ASTM D8184*		46	11	
Nickel ppm ASTM D5185(m) 0 0 ··· Silver ppm ASTM D5185(m) 0 0 ··· Silver ppm ASTM D5185(m) 15 0 0 ··· Aluminum ppm ASTM D5185(m) >15 0 0 ··· Lead ppm ASTM D5185(m) >65 <1 4 ··· Copper ppm ASTM D5185(m) >65 <1 <1 ··· Tin ppm ASTM D5185(m) 0 0 ··· ··· Antimony ppm ASTM D5185(m) 0 0 ··· ··· Vanadium ppm ASTM D5185(m) 0 0 ··· ··· Beryllium ppm ASTM D5185(m) 0 0 ··· ··· ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185(m) 0 <1 ··· <th>Iron</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>>50</th> <th>0</th> <th><1</th> <th></th>	Iron	ppm	ASTM D5185(m)	>50	0	<1	
Titanium	Chromium	ppm	ASTM D5185(m)	>5	0	0	
Silver	Nickel	ppm	ASTM D5185(m)		0	0	
Aluminum	Titanium	ppm	ASTM D5185(m)		0	0	
Lead	Silver	ppm	ASTM D5185(m)		0	0	
Copper	Aluminum	ppm	ASTM D5185(m)	>15	0	0	
Tin	Lead	ppm	ASTM D5185(m)	>65	<1	4	
Antimony ppm ASTM D5185(m) 0 0 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) <1 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 <1 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) <1 0 Magnesium ppm ASTM D5185(m) 52 50 Phosphorus ppm ASTM D5185(m) 321 332 Zinc ppm ASTM D5185(m) 3642 3638 Sulfur ppm ASTM D5185(m) 0 <1 <td< th=""><th>Copper</th><th>ppm</th><th>ASTM D5185(m)</th><th>>65</th><th><1</th><th><1</th><th></th></td<>	Copper	ppm	ASTM D5185(m)	>65	<1	<1	
Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) <1 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 <1 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 41 0 Phosphorus ppm ASTM D5185(m) 321 332 Zinc ppm ASTM D5185(m) 324 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1	Tin	ppm	ASTM D5185(m)	>10	2	1	
Beryllium	Antimony	ppm	ASTM D5185(m)		0	0	
Cadmium ppm ASTM D5185(m) <1	Vanadium	ppm	ASTM D5185(m)		0	0	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 <1 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) <1 0 Magnesium ppm ASTM D5185(m) 52 50 Calcium ppm ASTM D5185(m) 321 332 Phosphorus ppm ASTM D5185(m) 3642 3638 Zinc ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) <	Beryllium	ppm	ASTM D5185(m)		0	0	
Boron ppm ASTM D5185(m) 0 0 0 0 0	Cadmium	ppm	ASTM D5185(m)		<1	<1	
Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) <1 0 Magnesium ppm ASTM D5185(m) <1 0 Calcium ppm ASTM D5185(m) 52 50 Phosphorus ppm ASTM D5185(m) 321 332 Zinc ppm ASTM D5185(m) 420 424 Sulfur ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) <1	Boron	ppm	ASTM D5185(m)		0	<1	
Manganese ppm ASTM D5185(m) <1	Barium	ppm	ASTM D5185(m)		0	0	
Magnesium ppm ASTM D5185(m) <1	Molybdenum	ppm	ASTM D5185(m)		0	0	
Calcium ppm ASTM D5185(m) 52 50 Phosphorus ppm ASTM D5185(m) 321 332 Zinc ppm ASTM D5185(m) 420 424 Sulfur ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) >20 0 0 Potassium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 3139 6527 Particles >4µm ASTM D7647 >200 378 1038	Manganese	ppm	ASTM D5185(m)		<1	0	
Phosphorus ppm ASTM D5185(m) 321 332 Zinc ppm ASTM D5185(m) 420 424 Sulfur ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) >20 0 0 Potassium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 3139 6527 Particles >6μm ASTM D7647 >2500 378 1038 Particles >21μm ASTM D7647 >80 2 6 Part	Magnesium	ppm	ASTM D5185(m)		<1	0	
Zinc ppm ASTM D5185(m) 420 424 Sulfur ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) <1 <1 Potassium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 3139 6527 Particles >6μm ASTM D7647 >2500 378 1038 Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Calcium	ppm	ASTM D5185(m)		52	50	
Sulfur ppm ASTM D5185(m) 3642 3638 Lithium ppm ASTM D5185(m) 0 <1	Phosphorus	ppm	ASTM D5185(m)		321	332	
Lithium ppm ASTM D5185(m) 0 <1	Zinc	ppm	ASTM D5185(m)		420	424	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) >20 0 0 Potassium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 3139 6527 Particles >6µm ASTM D7647 >2500 378 1038 Particles >14µm ASTM D7647 >320 9 24 Particles >21µm ASTM D7647 >80 2 6 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0	Sulfur	ppm	. ,		3642	3638	
Silicon ppm ASTM D5185(m) >35 2 2 Sodium ppm ASTM D5185(m) <1	Lithium	ppm	ASTM D5185(m)		0	<1	
Sodium ppm ASTM D5185(m) <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185(m) >20 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 3139 6527 Particles >6μm ASTM D7647 >2500 378 1038 Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Silicon	ppm	ASTM D5185(m)	>35	2	2	
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 3139 6527 Particles >6μm ASTM D7647 >2500 378 1038 Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Sodium	ppm	ASTM D5185(m)		<1	<1	
Particles >4μm ASTM D7647 >10000 3139 6527 Particles >6μm ASTM D7647 >2500 378 1038 Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Potassium	ppm	ASTM D5185(m)	>20	0	0	
Particles >6μm ASTM D7647 >2500 378 1038 Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >320 9 24 Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Particles >4µm		ASTM D7647	>10000	3139	6527	
Particles >21μm ASTM D7647 >80 2 6 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Particles >6µm		ASTM D7647	>2500	378	1038	
Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0	Particles >14µm		ASTM D7647	>320	9	24	
Particles >71μm ASTM D7647 >4 0 0	Particles >21µm		ASTM D7647	>80	2	6	
	Particles >38µm		ASTM D7647	>20	0	0	
Oil Cleanliness ISO 4406 (c) >20/18/15 19/16/10 20/17/12	Particles >71µm		ASTM D7647	>4	0	0	
	Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/16/10	20/17/12	



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