

OIL ANALYSIS REPORT

Sample Rating Trend

DIRT

Area SMART OIL Machine Io HERTZ VD032000

Component Compressor

DIAGNOSIS

Recommendation

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 moderate amount of visible silt present in the sample. Elemental level of silicon (Si) above normal indicating ingress of seal material.

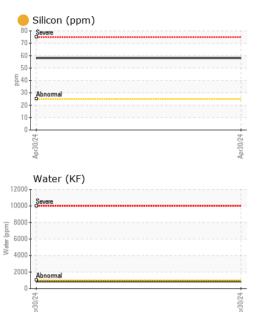
Fluid Condition

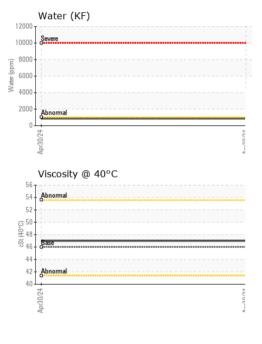
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UHK06185101		
Sample Date		Client Info		30 Apr 2024		
Machine Age	hrs	Client Info		1592		
Oil Age	hrs	Client Info		1592		
Oil Changed		Client Info		Not Changd		
Sample Status				ATTENTION		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	4		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m		1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>25	<1		
Copper	ppm	ASTM D5185m	>50	2		
Tin	ppm	ASTM D5185m	>15	2		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	0		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 <1 0	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 <1 0 47	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 <1 0 47 15	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	20	0 0 0 <1 0 47 15 314		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	20 limit/base	0 0 0 <1 0 47 15 314 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	20 20 limit/base >25 >20	0 0 0 <1 0 47 15 314 <i>current</i>	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	20 20 limit/base >25 >20	0 0 0 <1 0 47 15 314 current 58 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	20 20 limit/base >25 >20	0 0 0 <1 0 47 15 314 <i>current</i> 58 0 1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	20 limit/base >25 >20 >0.1	0 0 0 <1 0 47 15 314 current 58 0 1 1 0.085	 history1 	 history2



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	VISUAL						
			method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	MODER		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Apr30/24	Appearance	scalar	*Visual	NORML	NORML		
Ap	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.1	0.2%		
1	Free Water	scalar	*Visual		NEG		
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	46	47.0		
	SAMPLE IMAGES	6	method	limit/base	current	history1	history2
0/24 -	Color				a	no image	no image
Apr30/24							
	Datta						
	Bottom					no image	no image
	GRAPHS						
	Ferrous Alloys						
	10						
~	6 - mickel						
5	- 0 + enservice mickel						
3							
C~~ V							
C~~V							
Cerry	2			0.24			
CA	2			Apr30/24			
C	2			Apr30/24			
	Non-ferrous Metal			Apr30/24			
CA	Non-ferrous Metals			Apr30/24			
сч	Non-ferrous Metal			Apr30/24			
C-4	Non-ferrous Metal			Ap/30/24			
C4	Non-ferrous Metal			Api30/24			
	Non-ferrous Metals						
CA	Non-ferrous Metals			Api30/24 Api30/24 Api30/24 Api30/24			
CA	Non-ferrous Metals			Api30/24	Acid Number		
CA	Non-ferrous Metals			Api30/24			
СУ 2	Non-ferrous Metals			Api30/24			
CY	Non-ferrous Metals			Api30/24			
	Non-ferrous Metals			Api30/24			
	Non-ferrous Metals						
CY	Non-ferrous Metals			40.00 90.000 90.000 90.000 90.000 90.00000000			

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

Contact/Location: Service Manager - UCATLHER

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