

OIL ANALYSIS REPORT

Sample Rating Trend





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0739953	WC0739950	WC0744081
Sample Date		Client Info		19 Sep 2023	31 Mar 2023	28 Feb 2023
Machine Age	hrs	Client Info		1825	10472	10440
Oil Age	hrs	Client Info		200	0	10440
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	5	4	5
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	0	<1
Lead	ppm	ASTM D5185m	>20	5	4	5
Copper	ppm	ASTM D5185m	>20	26	23	24
Tin	ppm	ASTM D5185m	>10	2	1	1
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	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	7	8
Calcium	ppm	ASTM D5185m		81	82	82
Phosphorus	ppm	ASTM D5185m		339	353	341
Zinc	ppm	ASTM D5185m		407	414	430
Sulfur	ppm	ASTM D5185m		1986	1926	2334
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	<1	2
Sodium	ppm	ASTM D5185m		2	2	1
Potassium	ppm	ASTM D5185m	>20	2	1	2
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1017	343	
Particles >6µm		ASTM D7647	>1300	207	114	
Particles >14µm		ASTM D7647	>160	39	17	
Particles >21µm		ASTM D7647	>40	22	4	
Particles >38µm		ASTM D7647	>10	5	0	
Particles >71µm		ASTM D7647	>3	1	0	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/12	16/14/11	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.38	0.28	0.30	



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White Metal scalar 'Visual NONE NONE NONE NONE NONE Precipitate scalar 'Visual NONE NONE NONE NONE NONE NONE NONE Stit scalar 'Visual NONE NONE NONE NONE NONE NONE Sand/Dirt scalar 'Visual NONE NONE NONE NONE NONE NONE Sand/Dirt scalar 'Visual NONE NONE NONE NONE NONE NONE Sand/Dirt scalar 'Visual NORML NORML NORML NORML NORML Odor scalar 'Visual NORML NORML NORML NORML NORML NORML NORML NORML Scalar 'Visual NORML NORML NORML NORML NORML NORML Scalar 'Visual NORML NORML NORML NORML NORML NORML NORML NORML Scalar 'Visual NORML NORML NORML NORML NORML NORML Scalar 'Visual NORML Scalar 'Visual 'Visual 'Solo' NEG NEG NEG NEG NEG Scalar 'Visual 'Nor 'Solar 'Visual 'Solar 'Visual 'Nor 'S	VISUAL		method				history2
Yellow Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate scalar 'Visual NONE NONE NONE NONE NONE NONE NONE NON	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar Visual NONE NONE NONE NONE NONE NONE NONE NON	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar Visual NONE NONE NONE NONE NONE NONE NONE Appearance scalar Visual NORML NOR	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirit scalar 'Visual NONE NONE NONE NONE NORML Appearance scalar 'Visual NORML NORML NORML NORML NORML NORML Emulatified Water scalar 'Visual >0.05 Free Water scalar 'Visual >0.05 Free Water scalar 'Visual Sub scalar scalar 'Visual Sub scalar 'Visual Sub scalar 'Visual Sub scalar scalar 'Visual 'Sub scalar scalar 'Visual 'Sub scalar sca	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML NORM	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Odior scalar "Visual NORML Normality Normality Normality Normality Normality Normality Normality	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar 'Visual >0.05 NEG NEG NEG NEG Free Water scalar 'Visual 'NEG NEG NEG NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 46 45.3 45.3 46.6 SAMPLE IMAGES method limit/base current history1 history2 Color no image Bottom Particle Count no image GRAPHS Ferrous Alloys Particle Count 10 particle Count	Odor	scalar	*Visual	NORMI	NORMI	NORMI	NORMI
Free Water is scalar "Visual Visual V	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cSt ASTM D445 46 45.3 45.3 46.6 SAMPLE IMAGES method limit/base current history1 history2 Color Image no image no image Bottom Image no image no image GRAPHS Image Image Image Image Viscosity @ 40°C Of the table Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image Image </th <th>Free Water</th> <th>scalar</th> <th>*Visual</th> <th>20.00</th> <th>NEG</th> <th>NEG</th> <th>NEG</th>	Free Water	scalar	*Visual	20.00	NEG	NEG	NEG
Visc @ 40°C cSt ASTM D445 46 45.3 45.3 46.6 SAMPLE IMAGES method imit/base current history1 history2 Color no image Bottom Particle Count no image GRAPHS Ferrous Alloys Content of the second of				line it //e e e e		histowy d	history 0
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SAMPLE IMAGES method limit/base current history1 history2 Color no image Bottom CarPAPHS Ferrous Alloys Particle Count Construction of the second	Visc @ 40°C	cSt	ASTM D445	46	45.3	45.3	46.6
Color no image Bottom 0 image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Bottom no image	Color				•		no image
GRAPHS Ferrous Alloys Particle Count Particle Count Partic	Bottom						no image
Ferrous Alloys Particle Count Particle Count	GRAPHS						
Viscosity @ 40°C	Ferrous Alloys				Particle Count	:	
A chromium A chro	iron		I I	491,520			726
Non-ferrous Metals CIC IC	chromium		 	122,880			-24
Non-ferrous Metals CZC Direction Viscosity @ 40°C	4			20.720	Severe		22
COLIEPH Non-ferrous Metals CCRC 201 μmy Viscosity @ 40°C CCRC	2			50,720			122
$\frac{1}{2200} \frac{1}{10^{HV}} \frac{1}{10^{2}} \frac{1}$		and a line of the local data	-	7,680	Abnormal		-20 2
Non-ferrous Metals 1,320	10/22	28/23	31/23	19/23	1.1		10 440
Non-ferrous Metals $10^{-10^{-10^{-10^{-10^{-10^{-10^{-10^{-$	Nov	Feb2	Mar	Sep 1,520		•	10 6:19
$\mathbf{V}_{\text{iscosity}} @ 40^{\circ}\text{C}$	Non-ferrous Metal	s		-te 480-			16 6
$\mathbf{V}_{\text{iscosity}} (\mathbf{Q}, \mathbf{40^{\circ}C})$	copper 1		1	d jo ja 120		1	14 9
$\frac{1}{2000} \frac{1}{100} 1$	80 - management lead						14 %
$\mathbf{V}_{\text{iscosity}} @ 40^{\circ}\text{C}$	20 -			30	+		-12 🗟
Viscosity @ 40°C $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5$	0-		 				10
Viscosity @ 40°C	0						
Viscosity @ 40°C $\int_{0}^{100} \frac{1}{4}$ $\int_{0}^{100} \frac{1}{4}$ $\int_$	3/22 .	8/23	1/23	2/6			18
Viscosity @ 40°C 4μ 6μ 14μ 21μ 38μ 71μ Acid Number 6μ 14μ 21μ 38μ 71μ 6μ 14μ 21μ 38μ 71μ 6μ 14μ 21μ 38μ 71μ 6μ 14μ 21μ 38μ 71μ 6μ 14μ	Aug1 Nov	Feb2	Mar3	Sep 1			
Abnormal	Viscosity @ 40°C			4	Acid Number	14μ 21μ	38µ 71µ
Abnormal Base Abnormal Abnormal 5	55 T			-0.40	Base		
Base 0	50 - Abnormal			HOX 0 20			
	Base			- 0.30			
	Abnormal			ම 0.20 ස			
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210/2 28/2 28/2 19/2 10/2 28/2 28/2 28/2 28/2 28/2	10/2	28/2	r31/2	19/2	10/2	128/2.	r31/2



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

Contact/Location: TIM FELLER - AESEVE