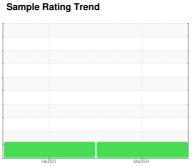


OIL ANALYSIS REPORT







ES02 Component

Main Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- LTR)

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. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm.

NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

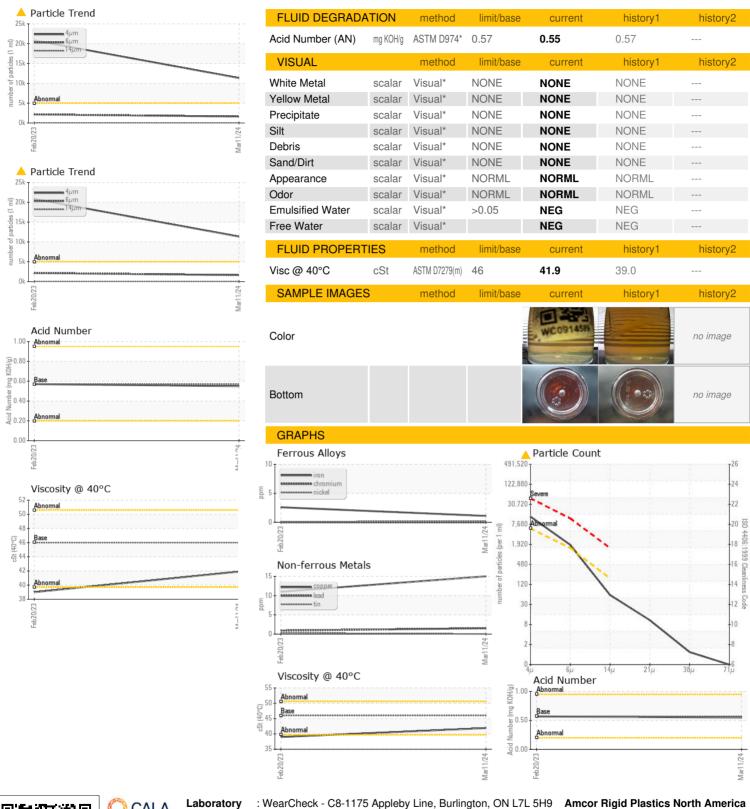
Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

			Feb 2023	Mar2024		
SAMPLE INFORM	AATIONI	and the second			la faction and	history O
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0914589	WC0779624	
Sample Date		Client Info		11 Mar 2024	20 Feb 2023	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	1	3	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		<1	0	
Aluminum	ppm	ASTM D5185(m)	>20	<1	0	
Lead	ppm	ASTM D5185(m)	>20	2	<1	
Copper	ppm	ASTM D5185(m)	>20	15	11	
Tin	ppm	ASTM D5185(m)	>20	0	<1	
Antimony	ppm	ASTM D5185(m)		0	<1	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
O = -l!				_		
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES	ppm	ASTM D5185(m) method	limit/base	0 current	0 history1	history2
	ppm	. ,	limit/base			
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	5	current 0	history1 <1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	5 5	current 0 8	history1 <1 13	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5	current 0 8 0	history1 <1 13 0	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	current 0 8 0	history1 <1 13 0 0	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25	current 0 8 0	history1 <1 13 0 0 <1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200	0 8 0 0 0 <1	history1 <1 13 0 0 <1 7	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300	0 8 0 0 0 <1 14 427	history1 <1 13 0 0 <1 7 478	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370	0 8 0 0 0 <1 14 427 398	history1 <1 13 0 0 <1 7 478 492	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370	Current 0 8 0 0 <1 14 427 398 973	history1 <1 13 0 0 <1 7 478 492 1007	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370 2500	current 0 8 0 0 <1 14 427 398 973 <1	history1 <1 13 0 0 <1 7 478 492 1007 <1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370 2500	current 0 8 0 0 <1 14 427 398 973 <1 current	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370 2500	current 0 8 0 0 <1 14 427 398 973 <1 current 0	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370 2500	current 0 8 0 0 <1 14 427 398 973 <1 current 0 0	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20	Current 0 8 0 0 <1 14 427 398 973 <1 Current 0 0 <1	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20	current 0 8 0 0 <1 14 427 398 973 <1 current 0 0 <1	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000	current 0 8 0 0 <1 14 427 398 973 <1 current 0 0 <1 turrent 11342	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1 history1 Algorithms Algor	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) method ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300	current 0 8 0 0 <1 14 427 398 973 <1 current 0 0 1 current 11342 1623	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1 history1 ^ 20843 2168	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) method ASTM D5185(m) ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	current 0 8 0 0 <1 14 427 398 973 <1 current 0 <1 current ▲ 11342 1623 51	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1 history1 20843 2168 60	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) method ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40	Current 0 8 0 0 <1 14 427 398 973 <1 Current 0 0 <1 current 11342 1623 51 9	history1 <1 13 0 0 <1 7 478 492 1007 <1 history1 0 0 <1 history1 △ 20843 ○ 2168 60 12	history2 history2 history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Sample No. Lab Number

Laboratory

Unique Number : 5746607

: WC0914589 : 02621488

Received **Tested** Diagnosed Test Package : IND 2 (Additional Tests: TAN Man)

: 13 Mar 2024 : 13 Mar 2024 - Wes Davis

: 12 Mar 2024

Mississauga, ON CA L4Z 4J3 Contact: Sandip Patel Sandip.Patel@amcor.com

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

T: F:

245 Britannia Road East