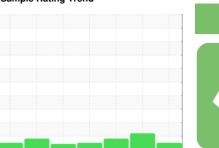


# **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL



MACHINE 11 (S/N 2824R)

Hydraulic System

SAFETY-KLEEN PERFORMANCE PLUS HYDRAULIC AW 46 (55 GAL)

# DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### 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.

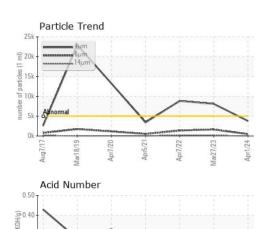
AULIC AW 46 (5	5 GAL)	Aug2017				
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0910094	WC0800146	WC0668626
Sample Date		Client Info		01 Apr 2024	27 Mar 2023	07 Apr 2022
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Filtered
Sample Status				NORMAL	ATTENTION	ATTENTION
CONTAMINATIO	Ν	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>40	1	7	<1
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>20	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>4	1	0	<1
Lead	ppm	ASTM D5185m	>10	1	0	0
Copper	ppm	ASTM D5185m	>60	1	<1	<1
Tin	ppm	ASTM D5185m	>4	1	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium						
Caumum	ppm	ASTM D5185m		<1	0	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	0 history1	0 history2
ADDITIVES	ppm		limit/base			
ADDITIVES Boron		method	limit/base	current	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
ADDITIVES Boron Barium Molybdenum	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 0	history1 0 0	history2 1 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1	history1 0 0 <1	history2  1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1 <1	history1  0 0 <1 <1	history2  1 0 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current 0 0 1 <1 <1 4	history1  0 0 <1 <1 16	history2  1 0 <1 0 7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	48	current 0 0 1 <1 4 60	history1  0 0 <1 <1 16 61	history2  1 0 <1 0 7 58
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	48 340	current 0 0 1 <1 4 60 368	history1  0 0 <1 <1 16 61 342	history2  1 0 <1 0 7 58 314
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	48 340	current 0 0 1 <1 4 60 368 433	history1  0 0 <1 <1 16 61 342 427	history2  1 0 <1 0 7 58 314 432
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	48 340 430	current 0 0 1 <1 4 60 368 433 928	history1  0 0 <1 <1 16 61 342 427 1019	history2  1 0 <1 0 7 58 314 432 708
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	48 340 430	current 0 0 1 <1 4 60 368 433 928 current	history1  0 0 <1 <1 16 61 342 427 1019 history1	history2  1 0 <1 0 7 58 314 432 708 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	48 340 430 limit/base >20	current 0 0 1 <1 4 60 368 433 928 current 0	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1	history2  1 0 <1 0 7 58 314 432 708 history2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	48 340 430 limit/base >20	current 0 0 1 <1 4 60 368 433 928 current 0	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	48 340 430 limit/base >20 >20	current 0 0 1 <1 4 60 368 433 928 current 0 0	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	48 340 430 limit/base >20 >20 limit/base	current  0  0  1  <1  4  60  368  433  928  current  0  1  current	history1  0  0 <1 <1 <1 16 61 342 427 1019 history1 <1 0 0 history1	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m	48 340 430 limit/base >20 >20 limit/base >5000	current  0  0  1 <1 4 60 368 433 928 current  0  0  1 current 3798	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0 0 history1  8089	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1 history2 8837
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m method ASTM D5185m	48 340 430 limit/base >20 >20 limit/base >5000 >1300 >160	current  0  0  1 <1 4 60 368 433 928 current  0  0  1 current 3798 470	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0 0 history1  8089 1639	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1 history2  8837 1369
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D7647 ASTM D7647	48 340 430 limit/base >20 >20 limit/base >5000 >1300 >160	current  0  0  1 <1 4 60 368 433 928 current  0  0  1 current 3798 470 25	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0 0 history1  8089 1639 108	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1 history2  8837 1369 144
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	48 340 430 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	current  0  0  1  <1  4  60  368  433  928  current  0  0  1  current  3798  470  25  7	history1  0 0 <1 <1 16 61 342 427 1019 history1 <1 0 0 history1  8089 1639 108 25	history2  1 0 <1 0 7 58 314 432 708 history2 <1 0 <1 history2  8837 1369 144 52

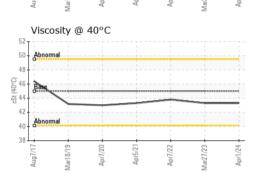


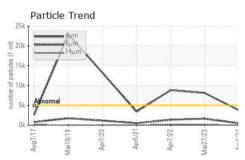
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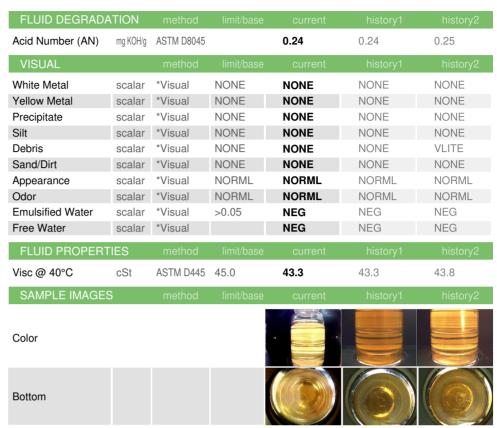
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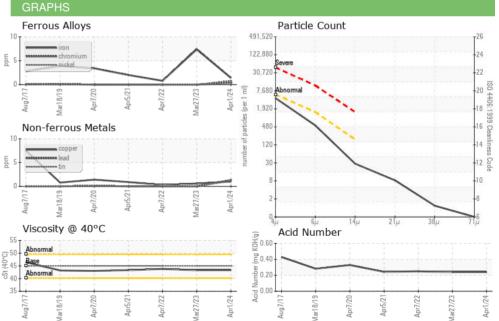
# OIL ANALYSIS REPORT















Certificate 12367

Laboratory Sample No. Lab Number : 06147291

Test Package : IND 2

: WC0910094 Unique Number : 10977369

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested** 

: 12 Apr 2024 : 15 Apr 2024 Diagnosed : 15 Apr 2024 - Wes Davis

Altium Packaging - SAMUELSON - Plant 1302A 1070 SAMUELSON ST

CITY OF INDUSTRY, CA US 91748-1219 Contact: ERIC LOYA

Eric.Loya@altiumpkg.com T:

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

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