



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**ALS SB 5W20**  
 Component  
**New (Unused) Oil**  
 Fluid  
**{not provided} (--- LTR)**

## RECOMMENDATION

This is a baseline read-out on the submitted sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0033923</b>	DC0035587	DC0031296
Sample Date		Client Info		<b>21 May 2024</b>	12 Mar 2024	22 Nov 2023
Machine Age	mls	Client Info		<b>0</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

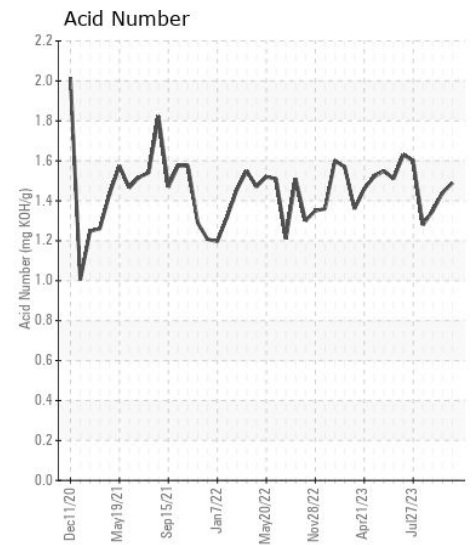
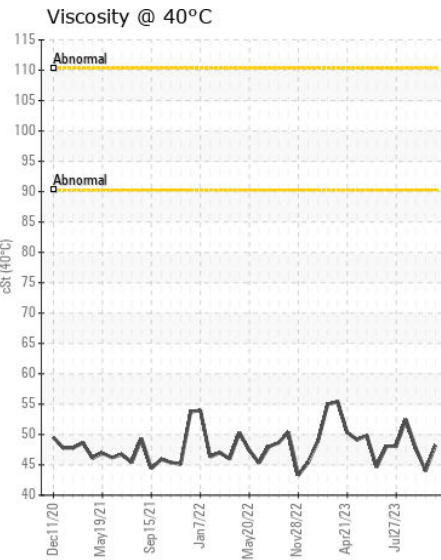
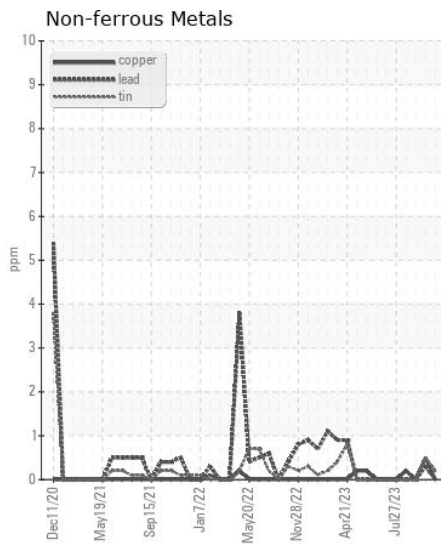
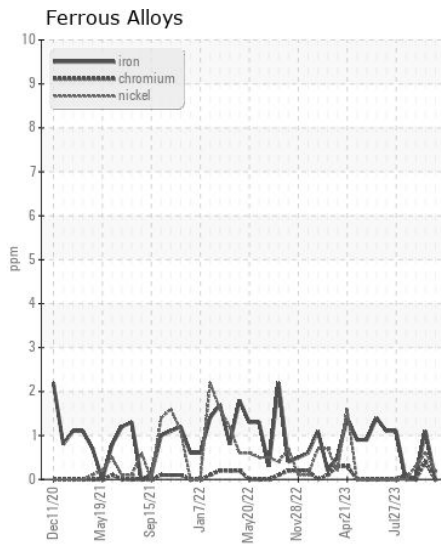
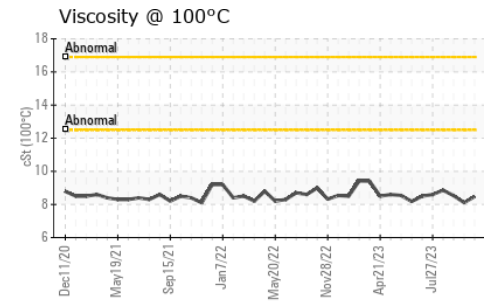
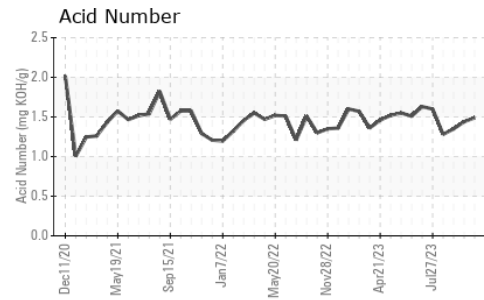
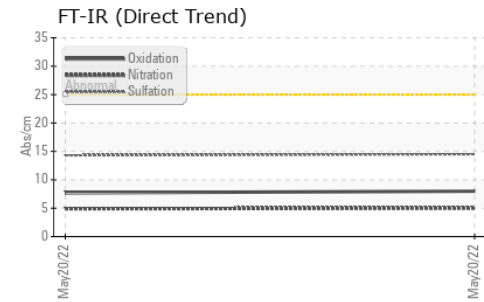
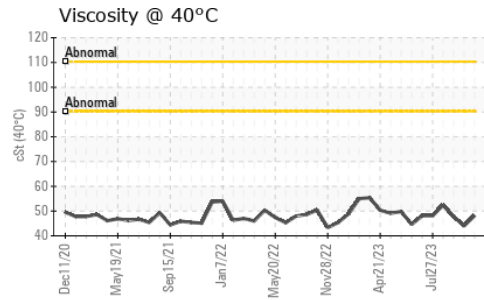
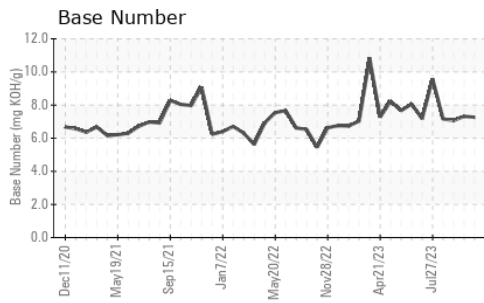
Iron	ppm	ASTM D5185m		<b>0</b>	1	0
Chromium	ppm	ASTM D5185m		<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m		<b>2</b>	3	1
Lead	ppm	ASTM D5185m		<b>0</b>	<1	0
Copper	ppm	ASTM D5185m		<b>0</b>	<1	0
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Silicon	ppm	ASTM D5185m		<b>8</b>	8	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Water		WC Method		<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

## FLUID CONDITION

Sodium	ppm	ASTM D5185m		<b>0</b>	2	0
Boron	ppm	ASTM D5185m		<b>172</b>	126	138
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>38</b>	40	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>667</b>	631	690
Calcium	ppm	ASTM D5185m		<b>737</b>	746	718
Phosphorus	ppm	ASTM D5185m		<b>577</b>	483	596
Zinc	ppm	ASTM D5185m		<b>653</b>	640	698
Sulfur	ppm	ASTM D5185m		<b>2542</b>	2165	2332
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.49</b>	1.44	1.35
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.26</b>	7.32	7.07
Visc @ 40°C	cSt	ASTM D445		<b>48.2</b>	43.99	47.79
Visc @ 100°C	cSt	ASTM D445		<b>8.48</b>	8.11	8.53
Viscosity Index (VI)	Scale	ASTM D2270		<b>153</b>	159	156



Certificate L2367

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

**Sample No.** : DC0033923

**Lab Number** : 06193460

**Unique Number** : 11050212

**Test Package** : MOB 2 ( Additional Tests: FT-IR, ICP-NewOil, KV100, PrcCount, TBN, ~~Q~~)

**Received** : 28 May 2024

**Tested** : 05 Jun 2024

**Diagnosed** : 05 Jun 2024 - Jonathan Hester

**THE UNITED OIL COMPANY - OPERATIONS**

4405 E. BALTIMORE ST

BALTIMORE, MD

US 21224

Contact: MICHELLE HORNING

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

\* - 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)

T:

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