



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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		DC0035587	DC0031296	DC0027235
Sample Date		Client Info		12 Mar 2024	22 Nov 2023	23 Aug 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

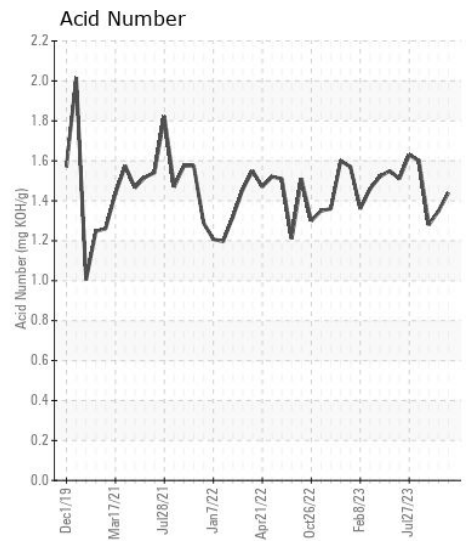
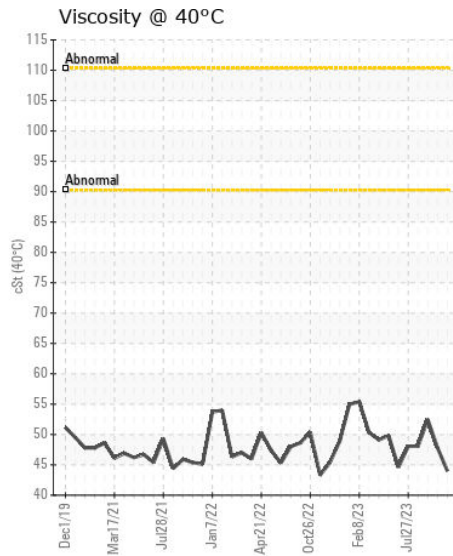
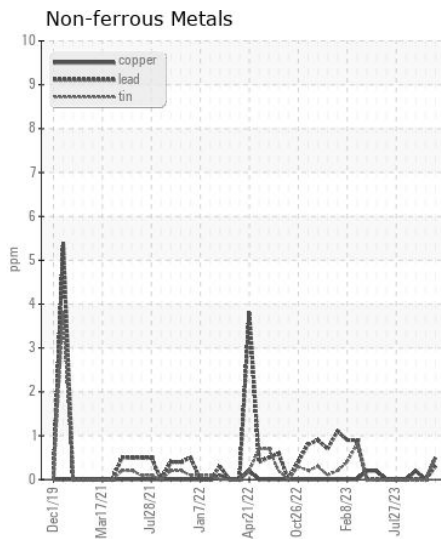
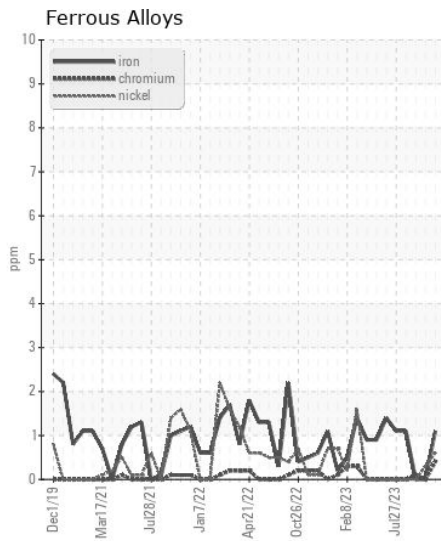
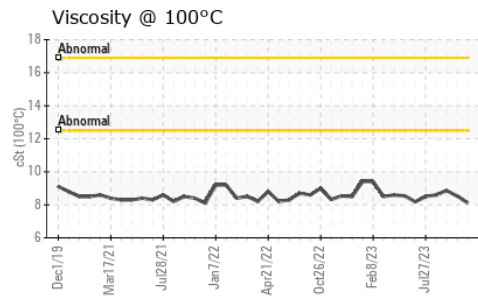
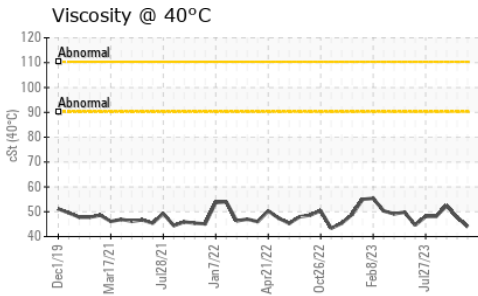
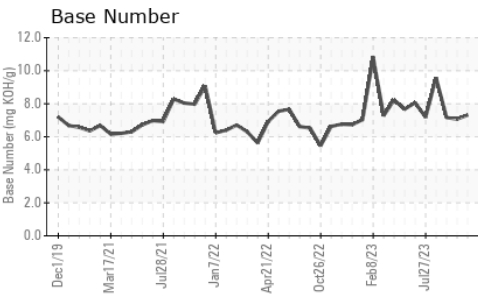
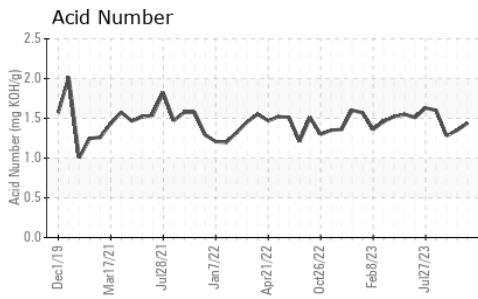
Iron	ppm	ASTM D5185m		1	0	0
Chromium	ppm	ASTM D5185m		<1	0	<1
Nickel	ppm	ASTM D5185m		<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		3	1	0
Lead	ppm	ASTM D5185m		<1	0	0
Copper	ppm	ASTM D5185m		<1	0	<1
Tin	ppm	ASTM D5185m		<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m		8	7	4
Potassium	ppm	ASTM D5185m	>20	<1	<1	1
Water		WC Method		NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG

FLUID CONDITION

Sodium	ppm	ASTM D5185m		2	0	0
Boron	ppm	ASTM D5185m		126	138	55
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		40	39	63
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		631	690	456
Calcium	ppm	ASTM D5185m		746	718	1144
Phosphorus	ppm	ASTM D5185m		483	596	641
Zinc	ppm	ASTM D5185m		640	698	796
Sulfur	ppm	ASTM D5185m		2165	2332	2582
Acid Number (AN)	mg KOH/g	ASTM D8045		1.44	1.35	1.28
Base Number (BN)	mg KOH/g	ASTM D2896		7.32	7.07	7.16
Visc @ 40°C	cSt	ASTM D445		43.99	47.79	52.46
Visc @ 100°C	cSt	ASTM D445		8.11	8.53	8.86
Viscosity Index (VI)	Scale	ASTM D2270		159	156	148



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035587
Lab Number : 06124451
Unique Number : 10938602
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, Viscosity)

Received : 20 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 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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