



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
ALS 15W40/309
 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		DC0033918	DC0033916	DC0035823
Sample Date		Client Info		21 May 2024	21 May 2024	15 May 2024
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

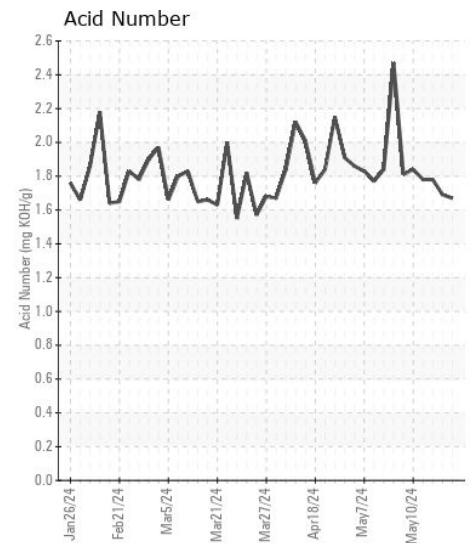
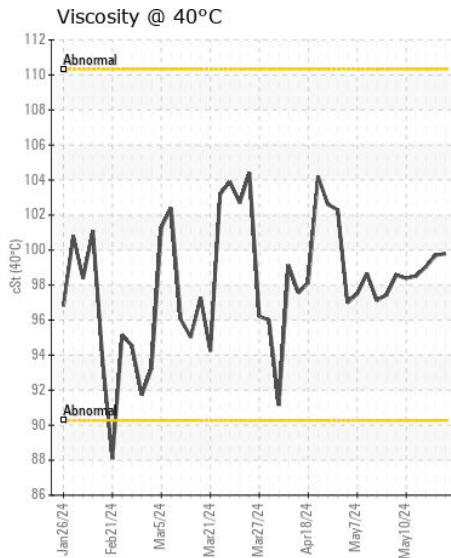
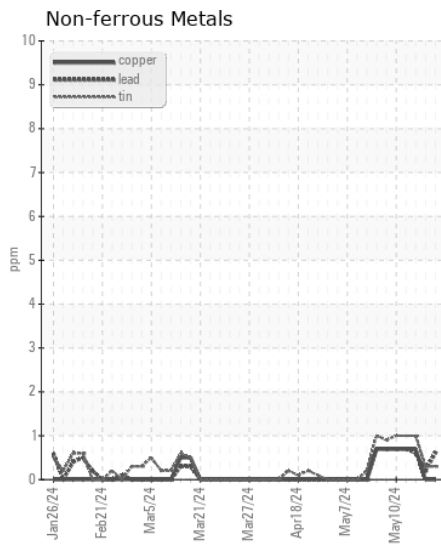
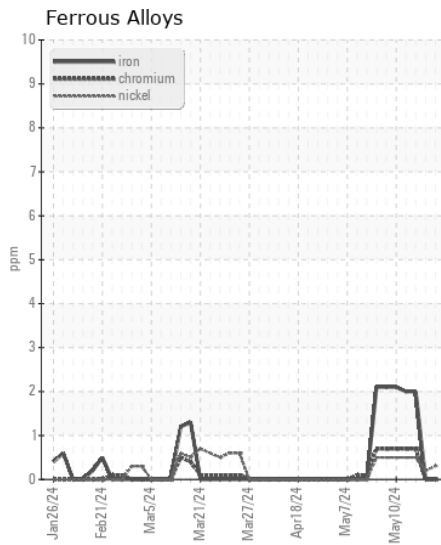
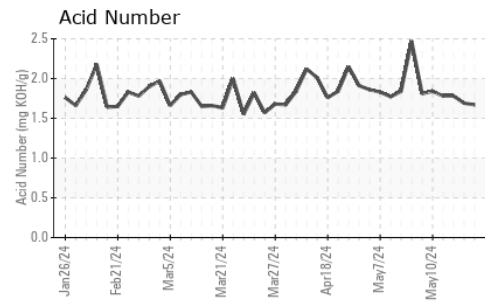
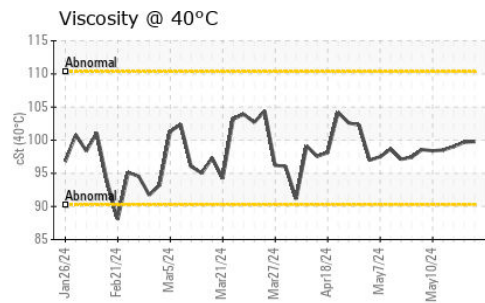
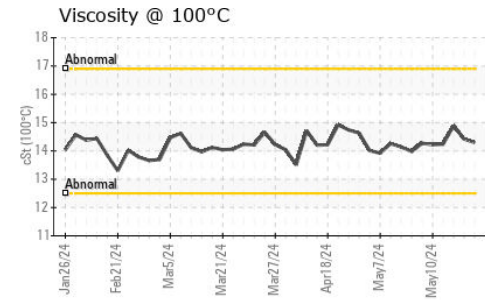
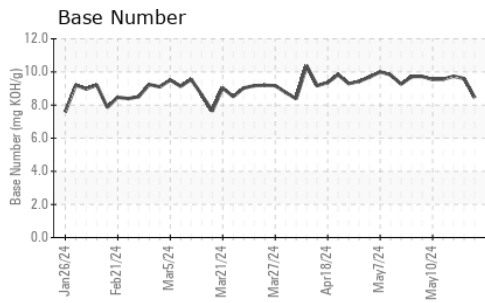
Iron	ppm	ASTM D5185m		0	0	2
Chromium	ppm	ASTM D5185m		0	0	<1
Nickel	ppm	ASTM D5185m		<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m		1	1	2
Lead	ppm	ASTM D5185m		<1	<1	<1
Copper	ppm	ASTM D5185m		0	0	<1
Tin	ppm	ASTM D5185m		<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m		7	7	8
Potassium	ppm	ASTM D5185m	>20	4	3	3
Water		WC Method		NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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		<1	<1	2
Boron	ppm	ASTM D5185m		2	6	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	4
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		13	29	65
Calcium	ppm	ASTM D5185m		2272	2246	2130
Phosphorus	ppm	ASTM D5185m		887	892	927
Zinc	ppm	ASTM D5185m		1015	1006	1030
Sulfur	ppm	ASTM D5185m		4069	4045	4417
Acid Number (AN)	mg KOH/g	ASTM D8045		1.67	1.69	1.78
Base Number (BN)	mg KOH/g	ASTM D2896		8.45	9.60	9.74
Visc @ 40°C	cSt	ASTM D445		99.8	99.7	99.03
Visc @ 100°C	cSt	ASTM D445		14.3	14.42	14.89
Viscosity Index (VI)	Scale	ASTM D2270		147	149	157



Certificate L2367

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

Sample No. : DC0033918

Lab Number : 06193462

Unique Number : 11050214

Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, 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:

F: (410)327-7695