



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
11603
 Component
Gasoline Engine
 Fluid
GASOLINE ENGINE OIL SAE 5W20 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950739	WC0924597	WC0913793
Sample Date		Client Info		05 Jul 2024	14 May 2024	01 Apr 2024
Machine Age	mls	Client Info		209046	201577	194663
Oil Age	mls	Client Info		7669	0	0
Filter Age	mls	Client Info		7669	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	9	7	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>40	2	3	2
Lead	ppm	ASTM D5185m	>50	0	<1	<1
Copper	ppm	ASTM D5185m	>155	<1	<1	3
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

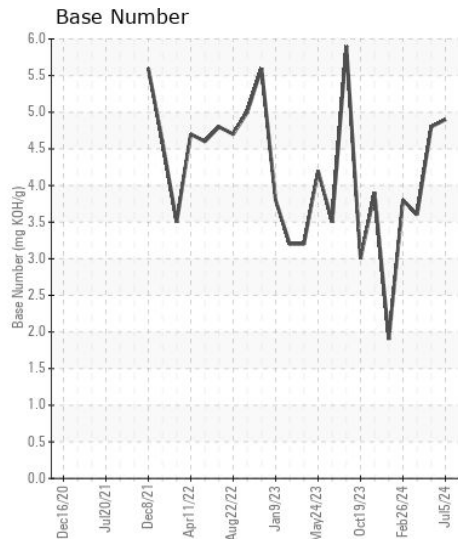
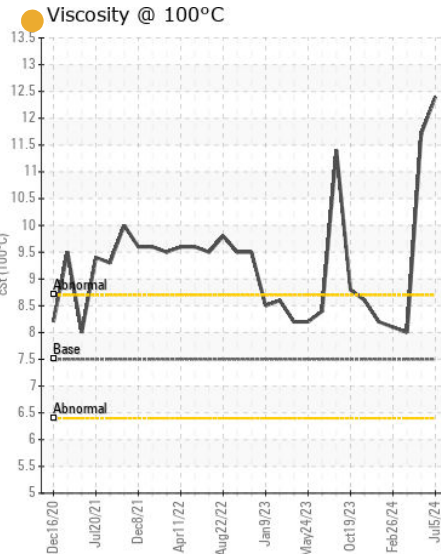
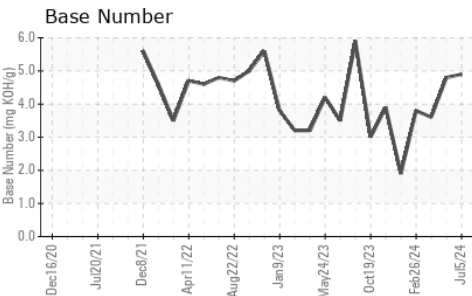
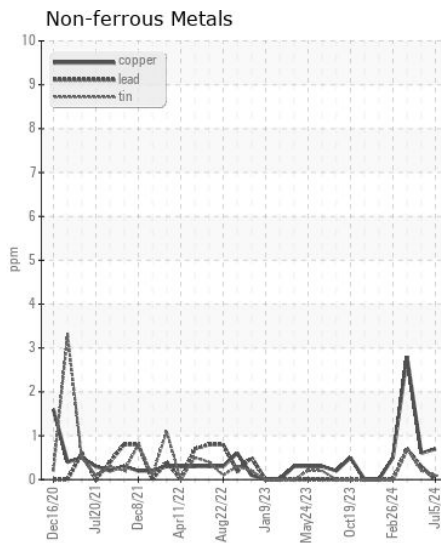
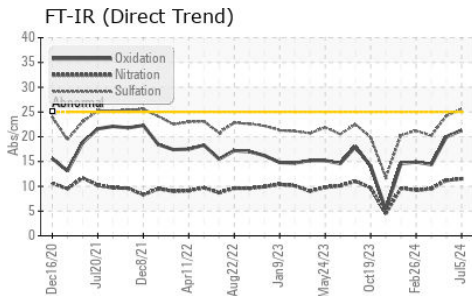
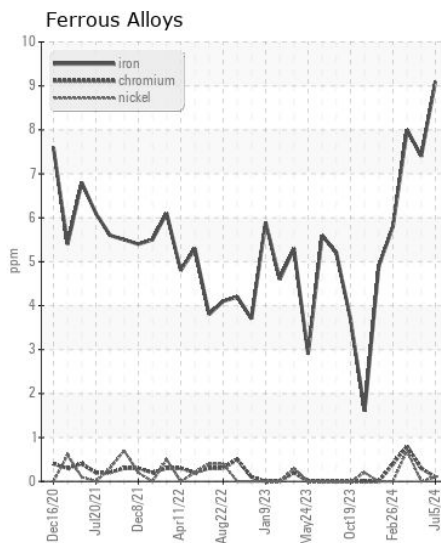
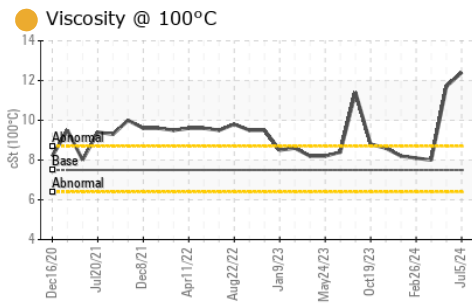
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	23	23	24
Potassium	ppm	ASTM D5185m	>20	5	▲ 31	3
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	11.5	11.2	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.6	24.2	20.2
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>50	1	24	1
Boron	ppm	ASTM D5185m	75	37	32	9
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	100	10	23	92
Manganese	ppm	ASTM D5185m		10	3	3
Magnesium	ppm	ASTM D5185m	12	712	654	463
Calcium	ppm	ASTM D5185m	2100	1387	1265	1045
Phosphorus	ppm	ASTM D5185m	650	771	725	563
Zinc	ppm	ASTM D5185m	850	881	809	705
Sulfur	ppm	ASTM D5185m	2500	2802	2858	1809
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	20.0	14.4
Base Number (BN)	mg KOH/g	ASTM D2896		4.9	4.8	3.6
Visc @ 100°C	cSt	ASTM D445	7.5	● 12.4	● 11.71	8.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950739 **Received** : 11 Jul 2024
Lab Number : 06233055 **Tested** : 11 Jul 2024
Unique Number : 11116548 **Diagnosed** : 12 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: TBN)

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Certificate L2367
 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)