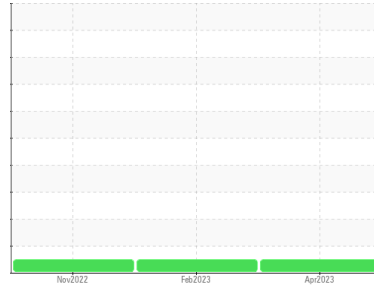




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
818
 Component
Diesel Engine
 Fluid
CITGO CITGO 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC05878600	WC05790707	WC05699558
Sample Date	Client Info			22 Apr 2023	04 Feb 2023	05 Nov 2022
Machine Age	mls	Client Info		503419	479829	453732
Oil Age	mls	Client Info		49417	26097	50310
Oil Changed	Client Info			Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	0.2	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	46	26	38
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	3
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	8	6
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	7	4	5
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	1	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		75	64	62
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		1068	821	404
Calcium	ppm	ASTM D5185m		1532	1305	1868
Phosphorus	ppm	ASTM D5185m		1234	1052	993
Zinc	ppm	ASTM D5185m		1596	1290	1234
Sulfur	ppm	ASTM D5185m		3677	2937	3145

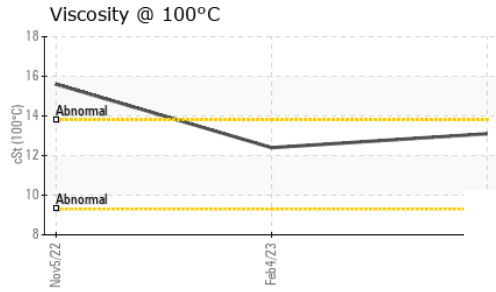
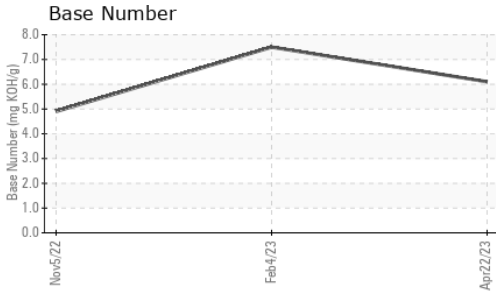
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	5	5
Sodium	ppm	ASTM D5185m		12	<1	0
Potassium	ppm	ASTM D5185m	>20	14	4	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.6	1	1.8
Nitration	Abs/cm	*ASTM D7624	>20	14.1	11.5	15.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.2	24.2	33.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.4	20.8	30.8
Base Number (BN)	mg KOH/g	ASTM D2896		6.1	7.5	4.9



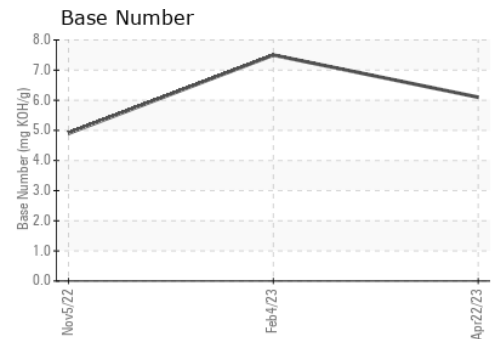
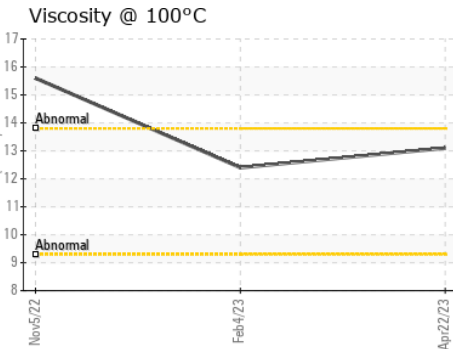
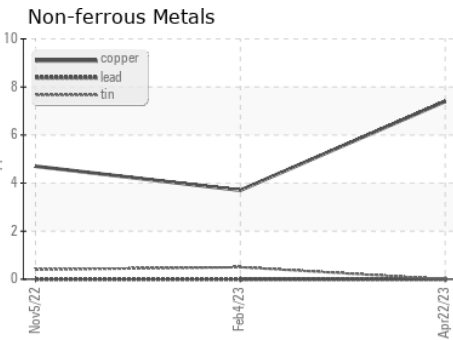
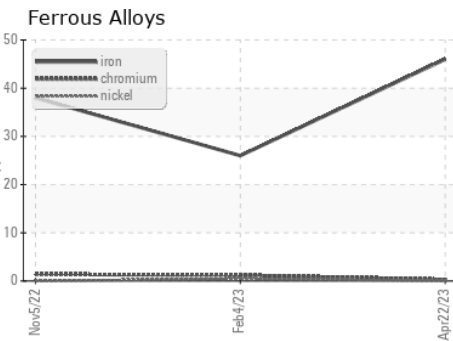
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.1	12.4	15.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05878600 **Received** : 20 Jun 2023
Lab Number : **05878600** **Diagnosed** : 22 Jun 2023
Unique Number : 10523703 **Diagnostician** : Sean Felton
Test Package : FLEET

LONNIE SONGER
 1820 SHELTON MISSION RD
 GREENEVILLE, TN
 US 37743
 Contact: LONNIE SONGER

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: