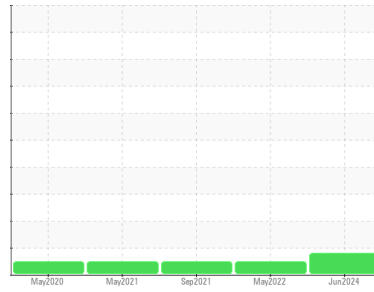




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id

**TA-306**

Component

**Diesel Engine**

Fluid

**CITGO CITGARD 700 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

Cylinder, crank, or cam shaft wear is indicated. All other 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			<b>WC0909465</b>	WC0588165	WC0569456
Sample Date	Client Info			<b>25 Jun 2024</b>	16 May 2022	15 Sep 2021
Machine Age	hrs	Client Info		<b>5750</b>	4840	4353
Oil Age	hrs	Client Info		<b>500</b>	1000	750
Oil Changed	Client Info			<b>Changed</b>	Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>▲ 127</b>	48	12
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	1	1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	3	1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	20	<b>4</b>	5	8
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	59	<b>69</b>	64	58
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m	783	<b>890</b>	908	979
Calcium	ppm	ASTM D5185m	1238	<b>1241</b>	1153	1271
Phosphorus	ppm	ASTM D5185m	949	<b>978</b>	1059	1064
Zinc	ppm	ASTM D5185m	1116	<b>1246</b>	1304	1190
Sulfur	ppm	ASTM D5185m	2909	<b>3233</b>	3798	5050

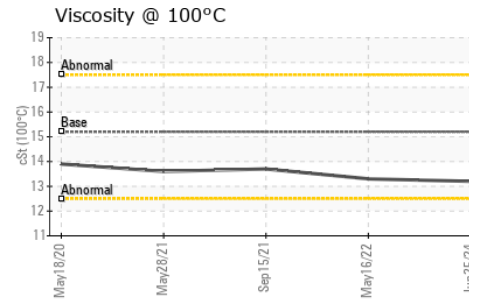
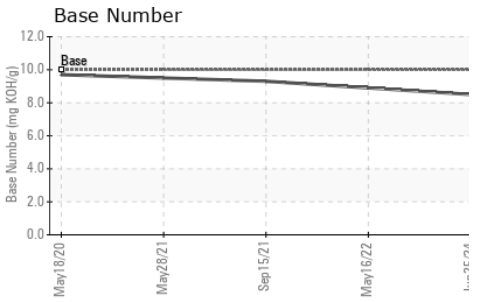
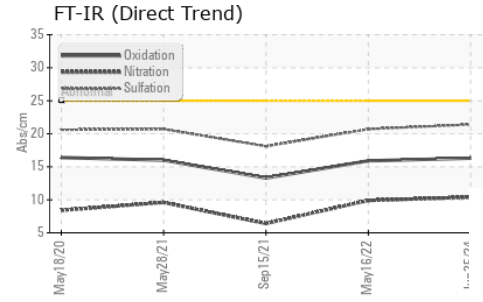
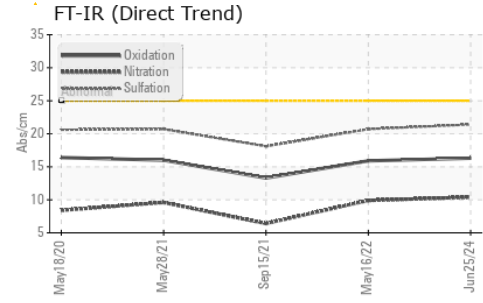
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	6	3
Sodium	ppm	ASTM D5185m		<b>8</b>	1	1
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	<1	8

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>1.1</b>	0.9	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.4</b>	9.9	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	20.7	18.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	15.9	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.5</b>	8.9	9.3



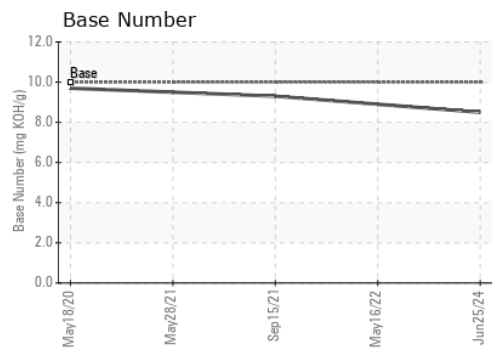
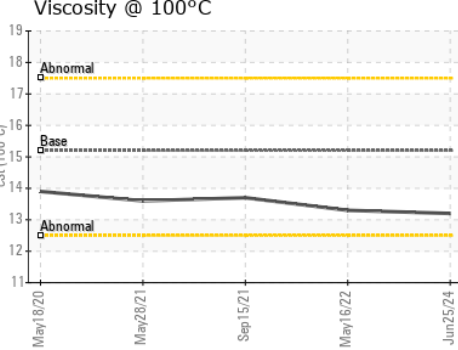
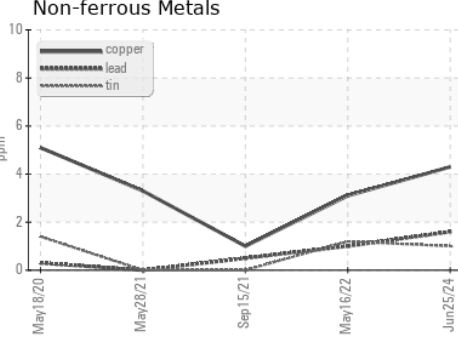
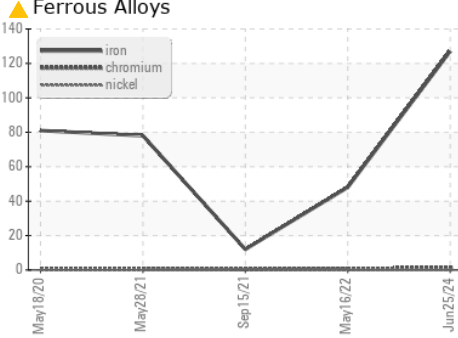
# OIL ANALYSIS REPORT



PARAMETER	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	15.2	13.2	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909465 **Received** : 15 Jul 2024  
**Lab Number** : 06235523 **Tested** : 15 Jul 2024  
**Unique Number** : 11124357 **Diagnosed** : 16 Jul 2024 - Don Baldrige  
**Test Package** : FLEET

**E.C. PACE CO.**  
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 F: (540)343-6909

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)