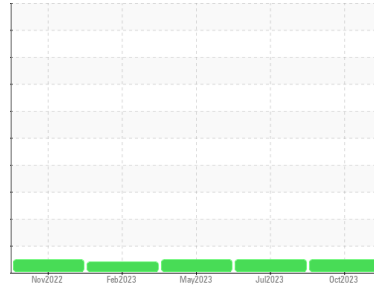




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**1645**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### 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		<b>WC0858117</b>	WC0760063	WC0760034
Sample Date	Client Info		<b>06 Oct 2023</b>	11 Jul 2023	05 May 2023
Machine Age	hrs	Client Info	<b>9828</b>	9260	8808
Oil Age	hrs	Client Info	<b>520</b>	520	8808
Oil Changed		Client Info	<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>10</b>	8	9
Chromium	ppm	ASTM D5185m >4	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	2	<1
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >85	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>6</b>	7	8
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>67</b>	70	69
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 450	<b>941</b>	1050	860
Calcium	ppm	ASTM D5185m 3000	<b>1102</b>	1255	1163
Phosphorus	ppm	ASTM D5185m 1150	<b>1002</b>	1176	1011
Zinc	ppm	ASTM D5185m 1350	<b>1262</b>	1426	1232
Sulfur	ppm	ASTM D5185m 4250	<b>3610</b>	4218	3320

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>6</b>	5	6
Sodium	ppm	ASTM D5185m >158	<b>3</b>	3	2
Potassium	ppm	ASTM D5185m >20	<b>5</b>	4	2

## INFRA-RED

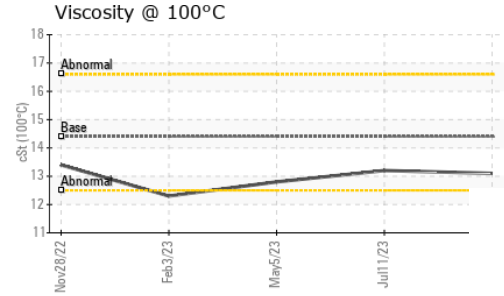
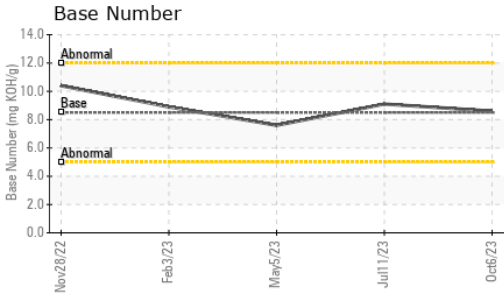
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.7</b>	7.7	7.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	19.8	17.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.9</b>	15.1	13.6
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>8.6</b>	9.1	7.6



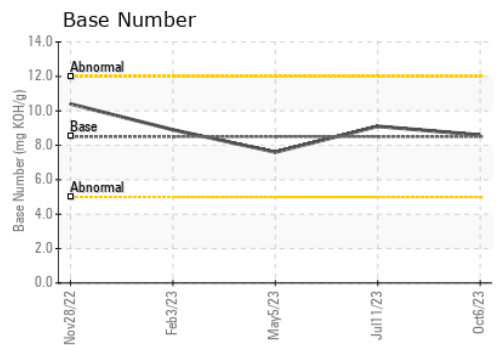
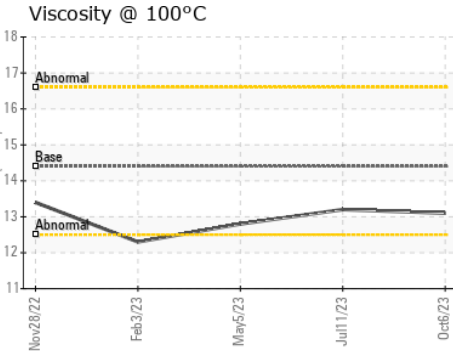
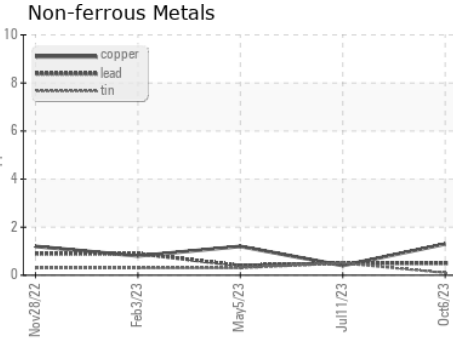
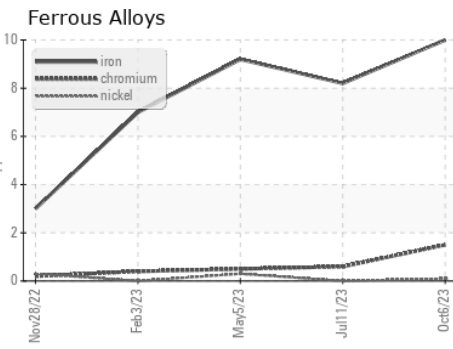
# OIL ANALYSIS REPORT



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	14.4	<b>13.1</b>	13.2	12.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0858117      **Received** : 17 Oct 2023  
**Lab Number** : **05981817**      **Diagnosed** : 18 Oct 2023  
**Unique Number** : 10699112      **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**Apple Valley Waste - Hometown Location**  
 155 Airport Road  
 Selinsgrove, PA  
 US 17870  
 Contact: Service Manager

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)

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F: