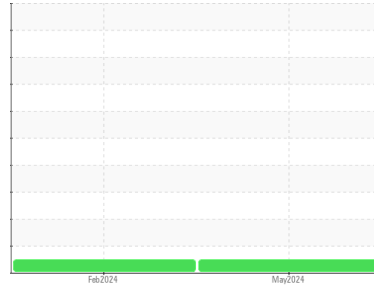




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**PRINCETON 1355**

Component  
**Diesel Engine**

Fluid  
**DISEL ENGINE OIL SAE 5W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>WC0917144</b>	WC0906230	---
Sample Date	Client Info		<b>16 May 2024</b>	22 Feb 2024	---
Machine Age	hrs	Client Info	<b>761</b>	718	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>5</b>	3	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	0	---
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>91</b>	107	---
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 100	<b>65</b>	63	---
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m 450	<b>927</b>	965	---
Calcium	ppm	ASTM D5185m 3000	<b>1235</b>	1333	---
Phosphorus	ppm	ASTM D5185m 1150	<b>856</b>	781	---
Zinc	ppm	ASTM D5185m 1350	<b>957</b>	900	---
Sulfur	ppm	ASTM D5185m 4250	<b>2220</b>	2556	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>25</b>	20	---
Sodium	ppm	ASTM D5185m >44	<b>&lt;1</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	---

## INFRA-RED

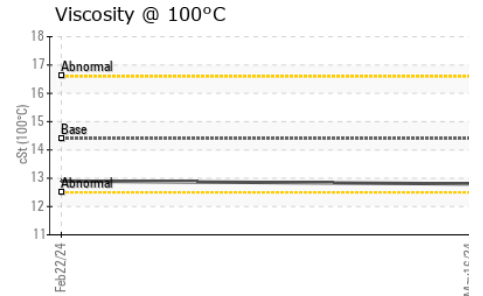
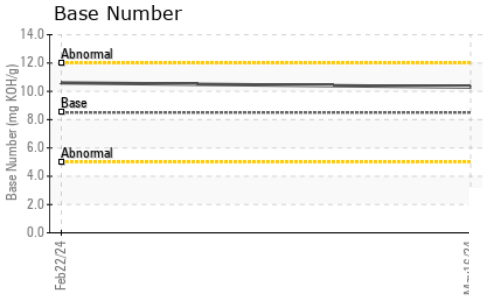
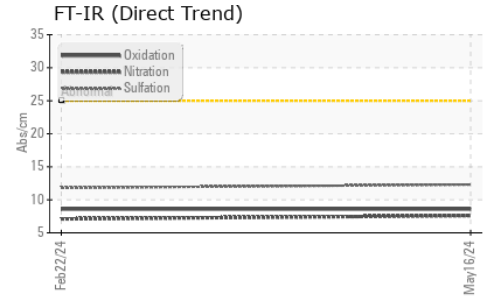
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.6</b>	7.1	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>12.3</b>	11.8	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>8.6</b>	8.6	---
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>10.3</b>	10.6	---



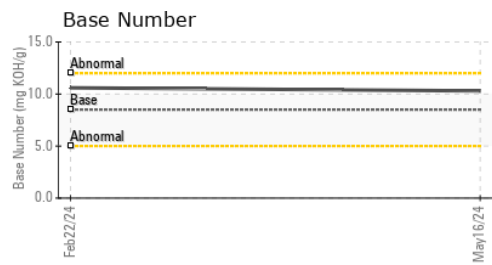
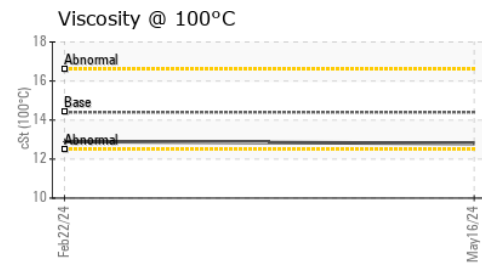
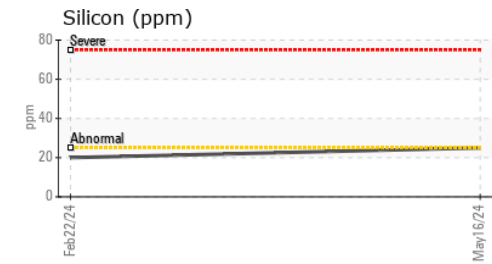
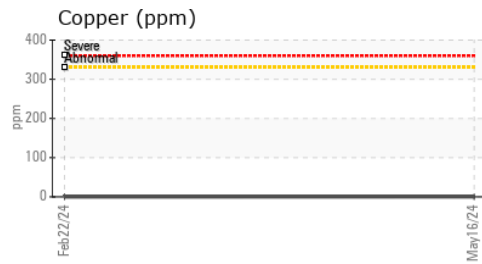
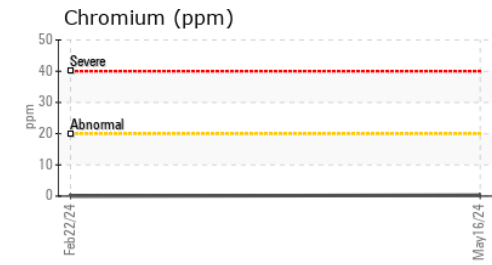
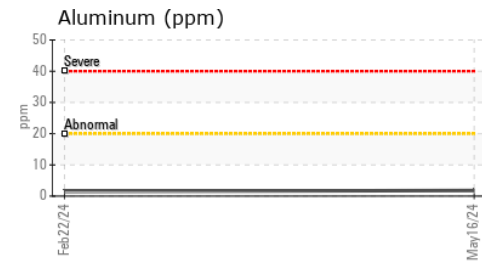
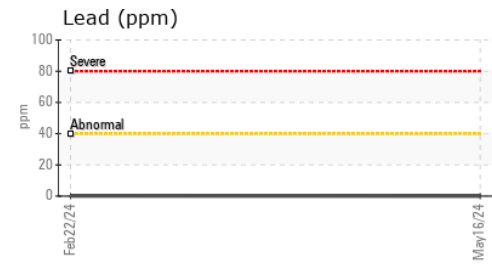
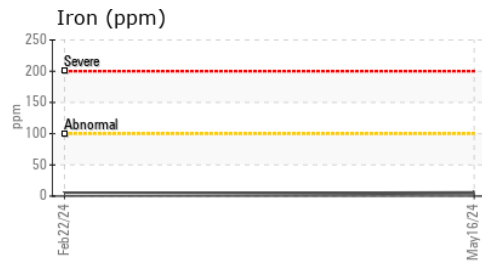
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.8</b>	12.9	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917144      **Received** : 19 Jun 2024  
**Lab Number** : **06214264**      **Tested** : 20 Jun 2024  
**Unique Number** : 11087128      **Diagnosed** : 20 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: BRYAN VANNIMAN  
 bryanvanniman@fayblock.com

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)