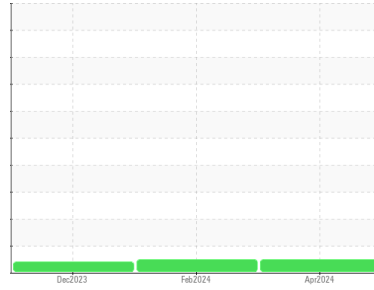




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**MCI 2057**

Component  
**Diesel Engine**

Fluid  
**PURUS SYNTHETIC BLEND 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		<b>WC0859106</b>	WC0859019	WC0859047
Sample Date	Client Info		<b>22 Apr 2024</b>	21 Feb 2024	07 Dec 2023
Machine Age	mls	Client Info	<b>108438</b>	82606	48000
Oil Age	mls	Client Info	<b>25000</b>	60000	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	ATTENTION

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	0.3
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>12</b>	17	27
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	4
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>0</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>12</b>	21	25
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>61</b>	68	73
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>974</b>	918	945
Calcium	ppm	ASTM D5185m		<b>1236</b>	1129	1134
Phosphorus	ppm	ASTM D5185m		<b>1092</b>	1102	1098
Zinc	ppm	ASTM D5185m		<b>1367</b>	1219	1213
Sulfur	ppm	ASTM D5185m		<b>3952</b>	3388	3358

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	8	8
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	6	11

### INFRA-RED

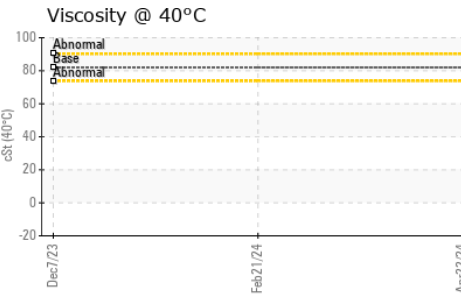
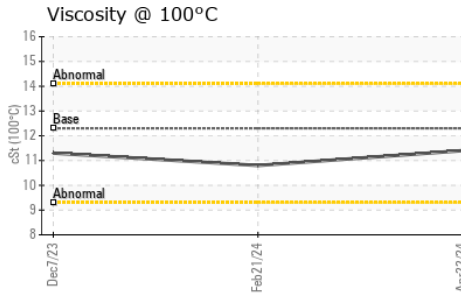
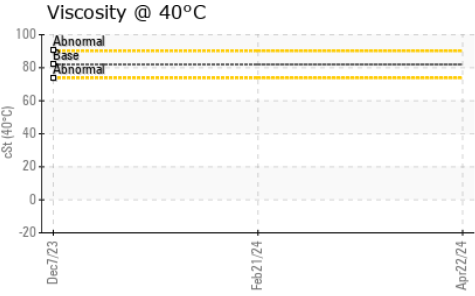
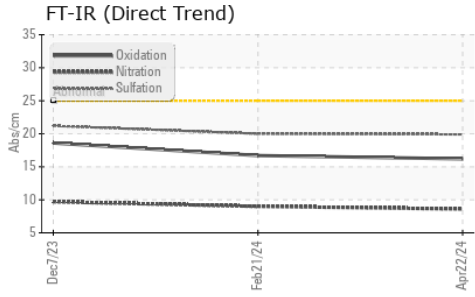
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	9.0	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	20.0	21.2

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.2</b>	16.7	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>7.7</b>	7.3	7.4



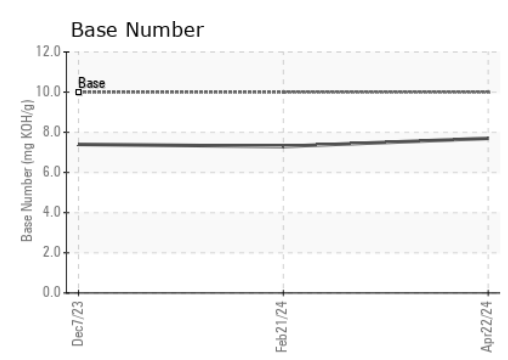
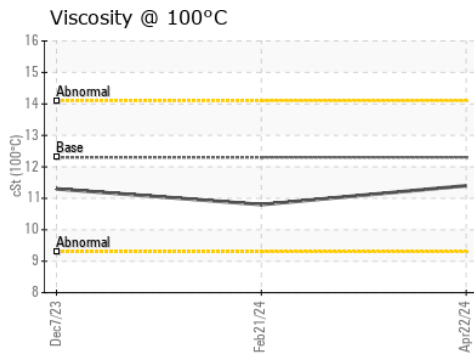
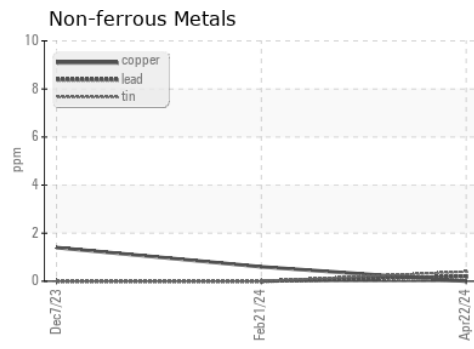
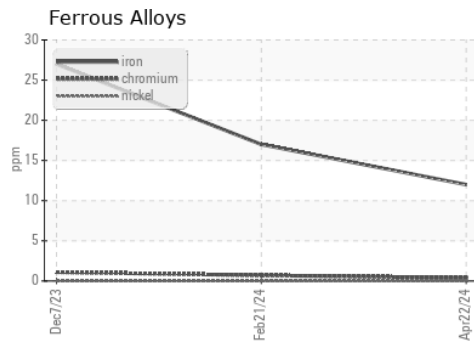
# OIL ANALYSIS REPORT



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	12.3	11.4	10.8

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0859106      **Received** : 12 Jun 2024  
**Lab Number** : 06208324      **Tested** : 14 Jun 2024  
**Unique Number** : 11075785      **Diagnosed** : 14 Jun 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: KV40 )

**JEFFERSON LINES**  
 1830 4TH AVE N  
 BILLINGS, MT  
 US 59101  
 Contact: BILLINGS SHOP  
 billingsshop@jeffersonlines.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)