



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**BELL B50E B93A650EJ03408276**  
 Component  
**Diesel Engine**  
 Fluid  
**SYNERGY 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>BE0020834</b>	BE0020833	---
Sample Date		Client Info		<b>13 May 2024</b>	20 Sep 2023	---
Machine Age	hrs	Client Info		<b>1008</b>	536	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>79	<b>17</b>	19	---
Iron	ppm	ASTM D5185m	>100	<b>22</b>	53	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	4	---
Lead	ppm	ASTM D5185m	>40	<b>3</b>	<1	---
Copper	ppm	ASTM D5185m	>330	<b>261</b>	300	---
Tin	ppm	ASTM D5185m	>15	<b>3</b>	4	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

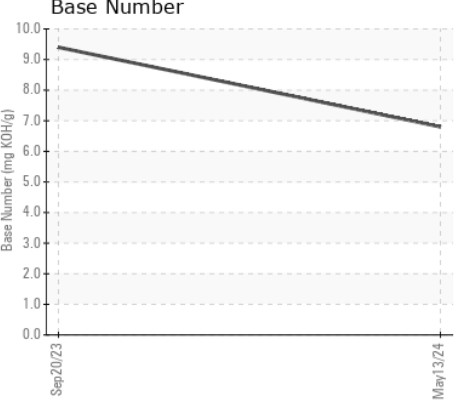
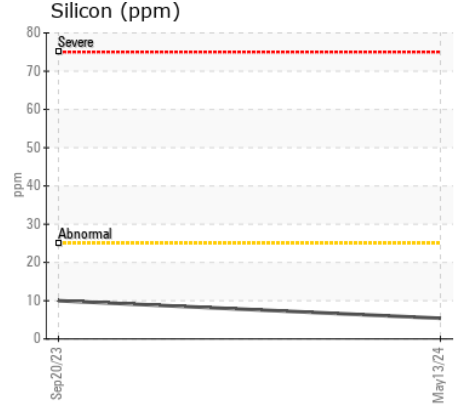
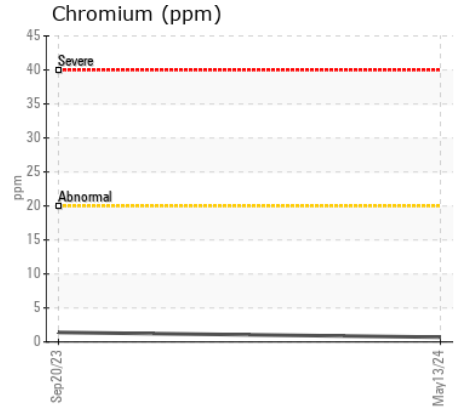
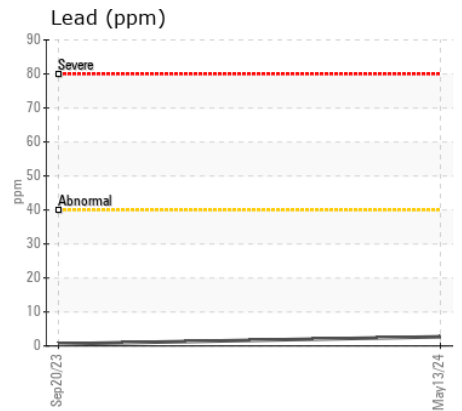
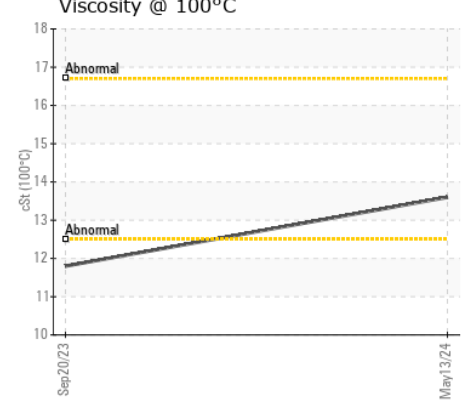
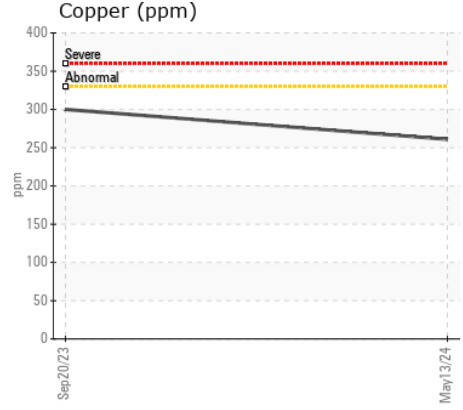
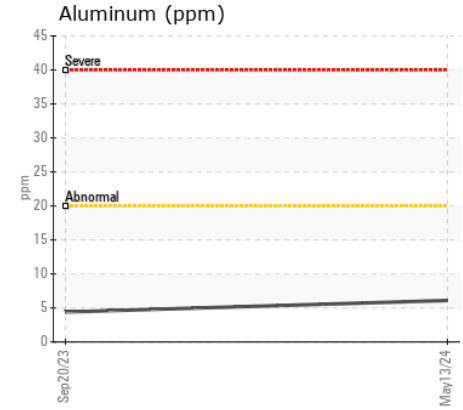
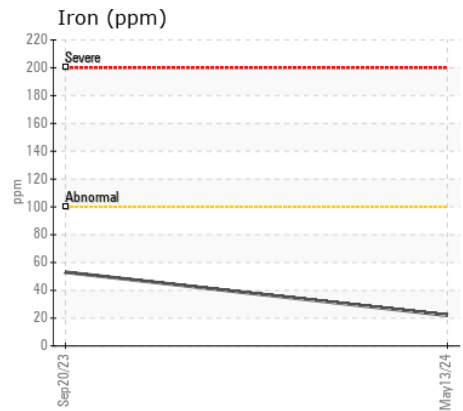
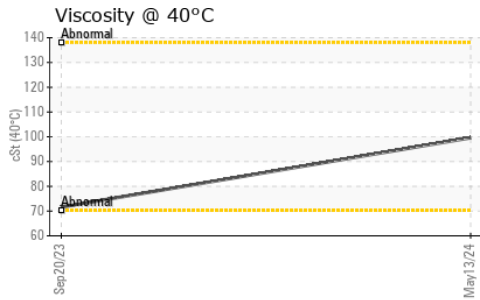
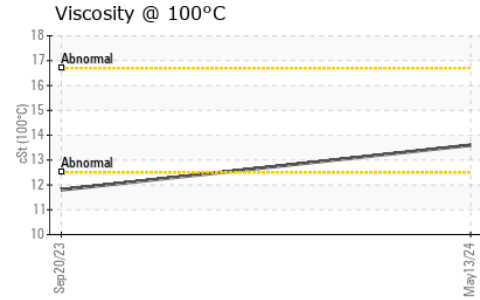
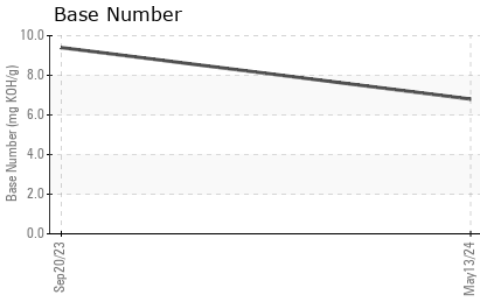
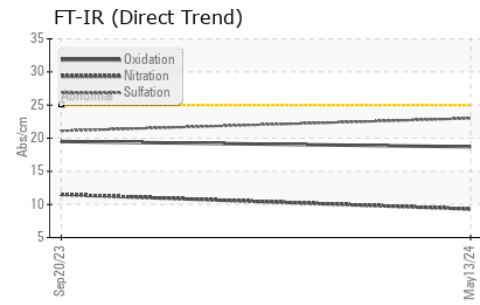
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	10	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	11	---
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	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	11.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.0</b>	21.1	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## 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.

Sodium	ppm	ASTM D5185m		<b>2</b>	7	---
Boron	ppm	ASTM D5185m		<b>277</b>	11	---
Barium	ppm	ASTM D5185m		<b>0</b>	3	---
Molybdenum	ppm	ASTM D5185m		<b>114</b>	3	---
Manganese	ppm	ASTM D5185m		<b>1</b>	5	---
Magnesium	ppm	ASTM D5185m		<b>512</b>	31	---
Calcium	ppm	ASTM D5185m		<b>1841</b>	2861	---
Phosphorus	ppm	ASTM D5185m		<b>1004</b>	834	---
Zinc	ppm	ASTM D5185m		<b>1223</b>	984	---
Sulfur	ppm	ASTM D5185m		<b>3225</b>	2714	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.7</b>	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.8</b>	9.4	---
Visc @ 40°C	cSt	ASTM D445		<b>99.6</b>	71.6	---
Visc @ 100°C	cSt	ASTM D445		<b>13.6</b>	11.8	---
Viscosity Index (VI)	Scale	ASTM D2270		<b>136</b>	160	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : BE0020834 **Received** : 22 May 2024  
**Lab Number** : 06187516 **Tested** : 28 May 2024  
**Unique Number** : 11044268 **Diagnosed** : 28 May 2024 - Jonathan Hester  
**Test Package** : MOBCE

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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