



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**31267**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL 10W40 (--- QTS)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950740	---	---
Sample Date		Client Info		21 Jun 2024	---	---
Machine Age	hrs	Client Info		507	---	---
Oil Age	hrs	Client Info		500	---	---
Filter Age	hrs	Client Info		500	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	16	---	---
Chromium	ppm	ASTM D5185m	>20	4	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	5	---	---
Lead	ppm	ASTM D5185m	>40	5	---	---
Copper	ppm	ASTM D5185m	>330	245	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

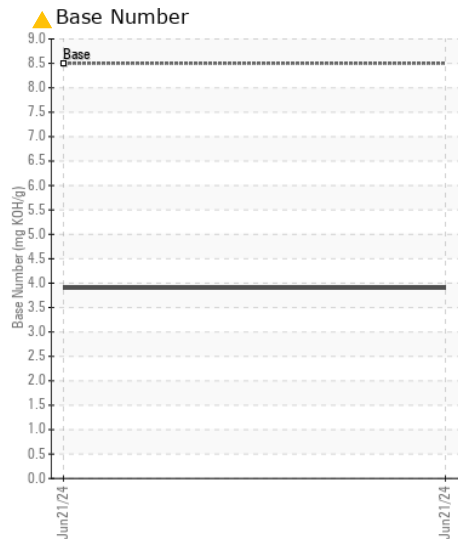
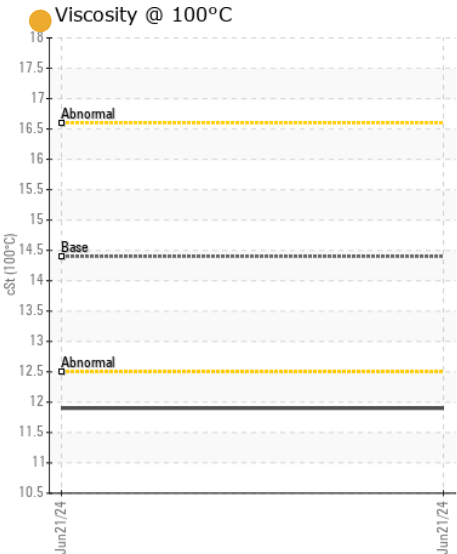
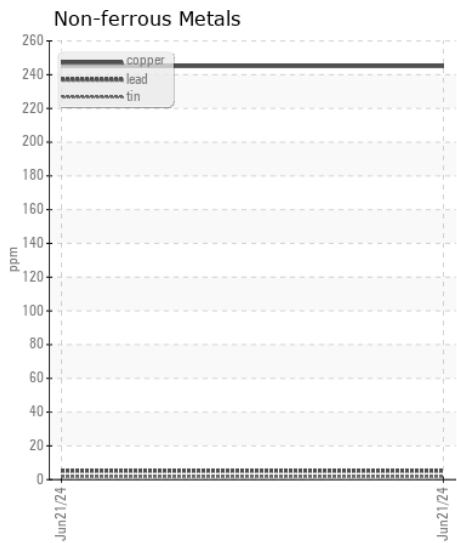
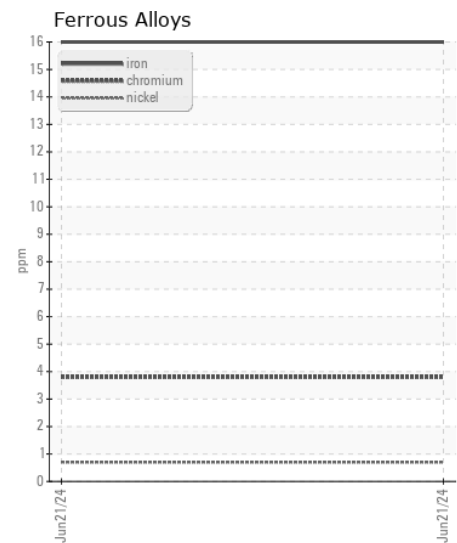
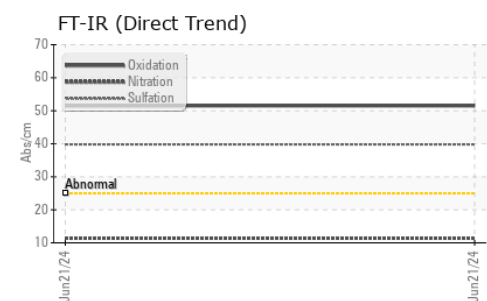
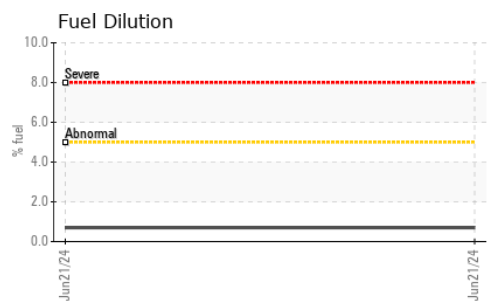
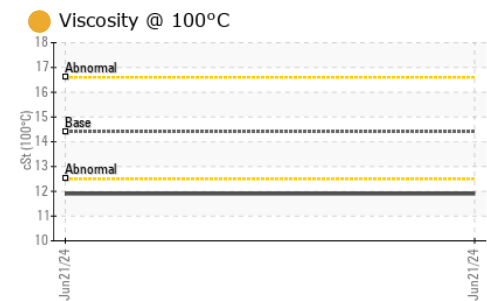
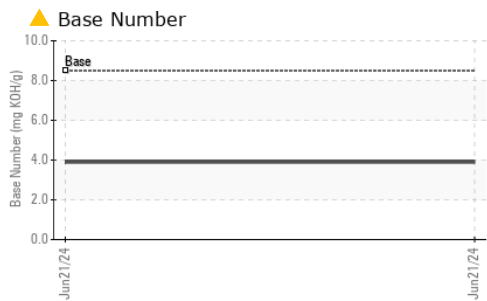
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---
Fuel	%	ASTM D3524	>5	0.7	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	39.8	---	---
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	---	---

## FLUID CONDITION

The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	250	95	---	---
Barium	ppm	ASTM D5185m	10	22	---	---
Molybdenum	ppm	ASTM D5185m	100	48	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m	450	851	---	---
Calcium	ppm	ASTM D5185m	3000	1327	---	---
Phosphorus	ppm	ASTM D5185m	1150	611	---	---
Zinc	ppm	ASTM D5185m	1350	869	---	---
Sulfur	ppm	ASTM D5185m	4250	2087	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	51.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 3.9	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.9	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0950740 **Received** : 25 Jun 2024  
**Lab Number** : 06219511 **Tested** : 28 Jun 2024  
**Unique Number** : 11097708 **Diagnosed** : 28 Jun 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**SULLIVAN EASTERN INC**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560  
 Contact: SCOTT SULLIVAN  
 ssullivan@sullivaneastern.com  
 T: (919)484-8993  
 F: (919)484-2136

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)