



OIL ANALYSIS REPORT

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

Area  
**Store 3 - Norton**

Machine Id  
**HITACHI ZX250LC EX20 (S/N 1FFDCB70EEE430316)**

Component  
**Diesel Engine**

Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0049321</b>	LEC0014370	---
Sample Date		Client Info		<b>19 Jun 2024</b>	21 Aug 2020	---
Machine Age	hrs	Client Info		<b>8011</b>	6562	---
Oil Age	hrs	Client Info		<b>500</b>	500	---
Filter Age	hrs	Client Info		<b>500</b>	500	---
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.

Iron	ppm	ASTM D5185m	>100	<b>13</b>	22	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>1</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	9	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	7	---
Copper	ppm	ASTM D5185m	>330	<b>7</b>	17	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

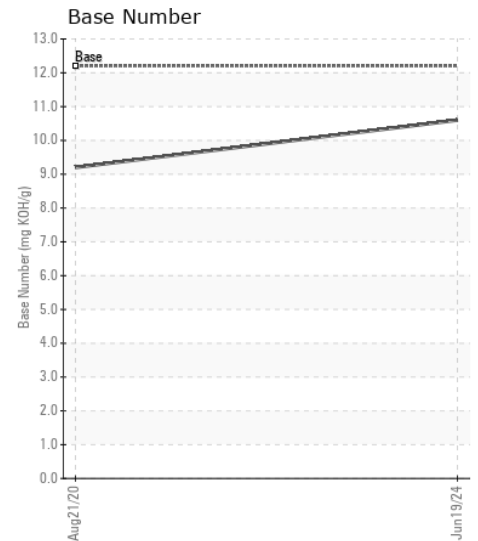
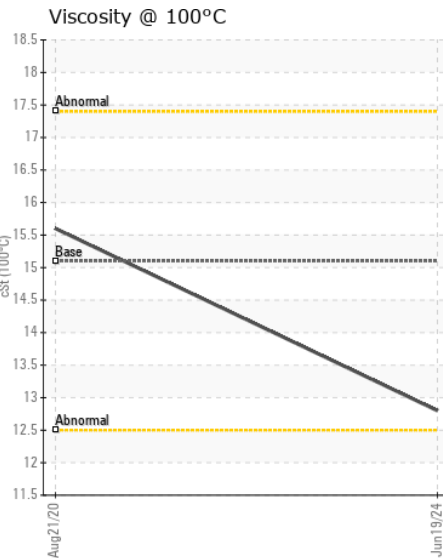
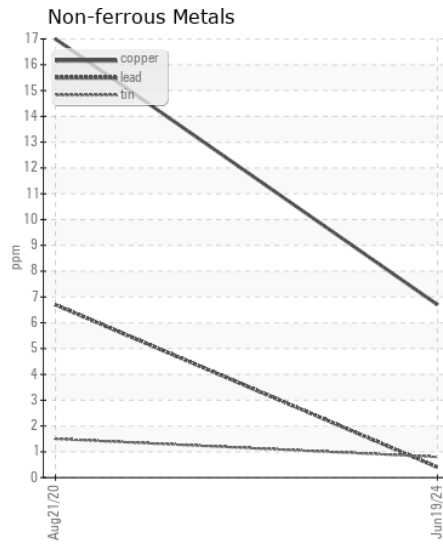
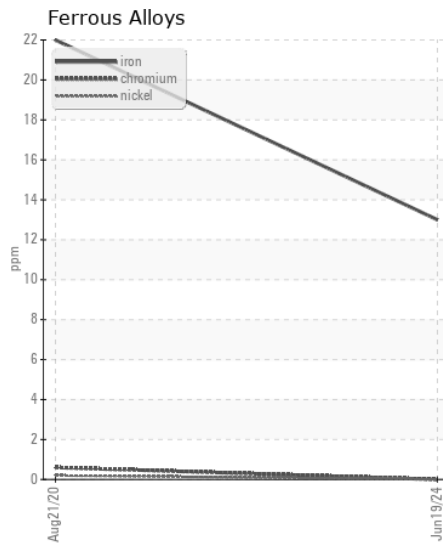
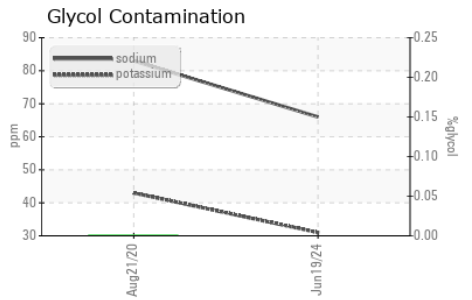
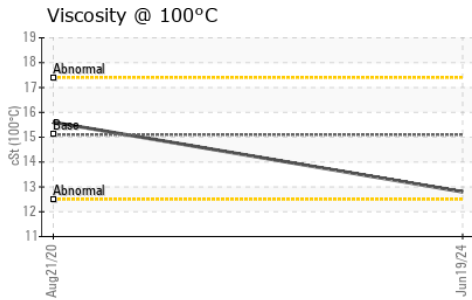
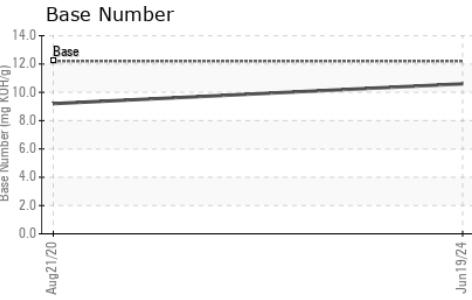
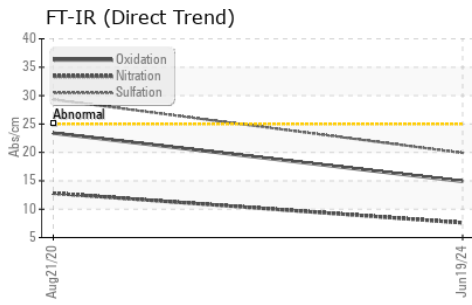
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>6</b>	9	---
Potassium	ppm	ASTM D5185m	>20	<b>31</b>	43	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	%	*ASTM D2982		<b>NEG</b>	0.0	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	2.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	12.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	29.3	---
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>66</b>	83	---
Boron	ppm	ASTM D5185m		<b>28</b>	32	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>75</b>	98	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>420</b>	610	---
Calcium	ppm	ASTM D5185m		<b>1617</b>	1709	---
Phosphorus	ppm	ASTM D5185m	1360	<b>975</b>	697	---
Zinc	ppm	ASTM D5185m	1480	<b>1153</b>	797	---
Sulfur	ppm	ASTM D5185m		<b>3571</b>	2488	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.9</b>	23.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>10.6</b>	9.2	---
Visc @ 100°C	cSt	ASTM D445	15.1	<b>12.8</b>	15.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0049321 **Received** : 03 Jul 2024  
**Lab Number** : 06227181 **Tested** : 08 Jul 2024  
**Unique Number** : 11110674 **Diagnosed** : 08 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: GLYCOL, TBN )

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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