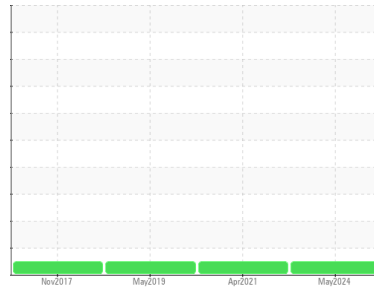


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**TAKEUCHI E-48**  
 Component  
**Diesel Engine**  
 Fluid  
**FLEETLINE SUPERFLEET XHD 15W40 (2 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>PCA0109835</b>	WCM2312783	WCM2324942
Sample Date	Client Info			<b>10 May 2024</b>	05 Apr 2021	07 May 2019
Machine Age	hrs	Client Info		<b>2053</b>	1806	1542
Oil Age	hrs	Client Info		<b>247</b>	264	268
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1		<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	>80	<b>17</b>	22	16
Chromium	ppm	ASTM D5185m	>6	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	<1	3
Lead	ppm	ASTM D5185m	>95	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m	>85	<b>2</b>	2	1
Tin	ppm	ASTM D5185m	>9	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

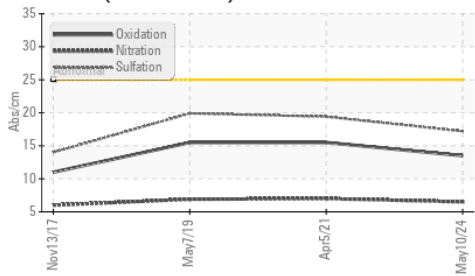
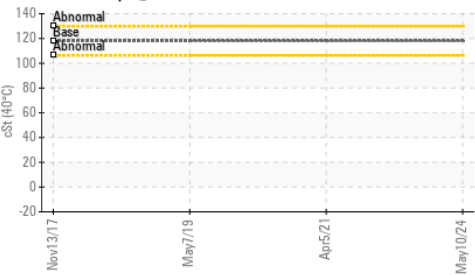
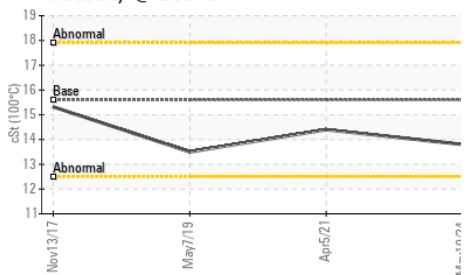
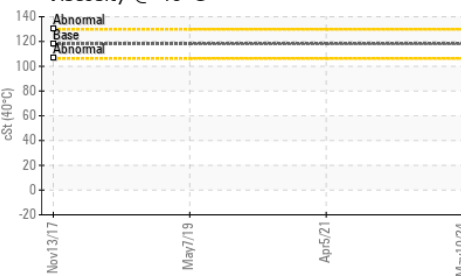
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>19</b>	30	321
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>63</b>	70	108
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>964</b>	1023	544
Calcium	ppm	ASTM D5185m		<b>1086</b>	1181	1296
Phosphorus	ppm	ASTM D5185m		<b>1068</b>	1078	567
Zinc	ppm	ASTM D5185m		<b>1230</b>	1256	802
Sulfur	ppm	ASTM D5185m		<b>3611</b>	2826	2143

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>13</b>	11	10
Sodium	ppm	ASTM D5185m		<b>4</b>	4	8
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	<1	5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	7	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.2</b>	19.4	19.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.5</b>	15.5	15.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.31</b>	10.3	8.09

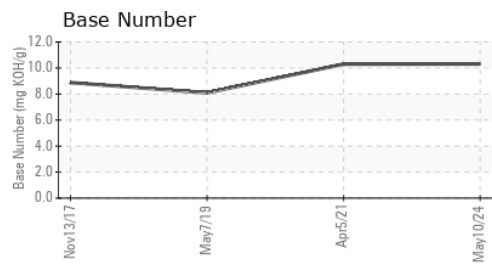
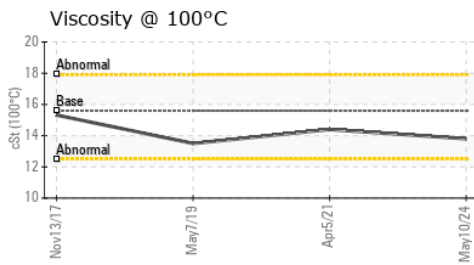
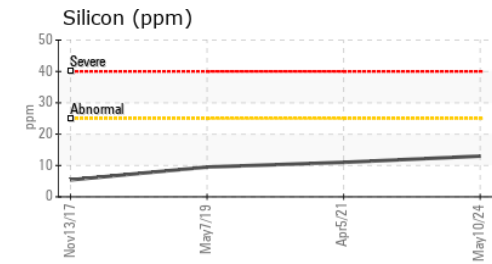
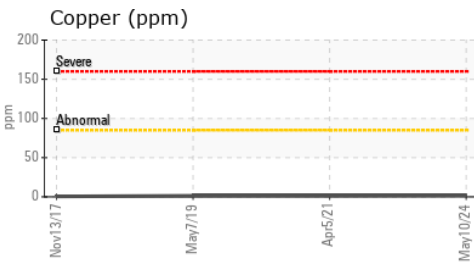
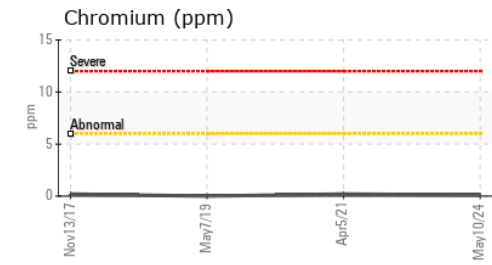
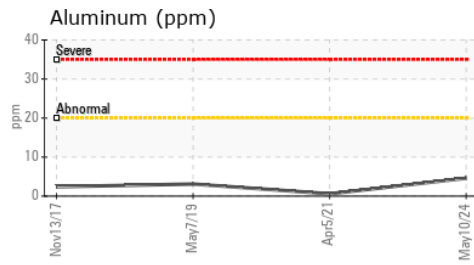
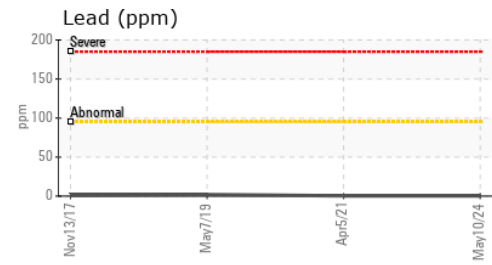
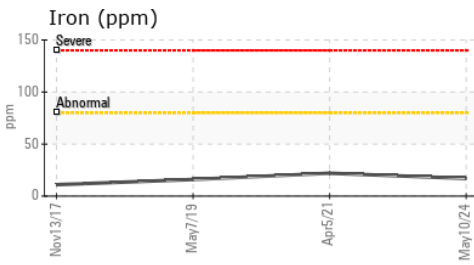
# OIL ANALYSIS REPORT

**FT-IR (Direct Trend)**

**Viscosity @ 40°C**

**Viscosity @ 100°C**

**Viscosity @ 40°C**

**Viscosity @ 100°C**


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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.8</b>	14.4	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109835      **Received** : 28 Jun 2024  
**Lab Number** : **06223648**      **Tested** : 01 Jul 2024  
**Unique Number** : 11101845      **Diagnosed** : 01 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV40 )

**LORUSSO BRISTOL STONE CORP**  
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 US 02189  
 Contact: PAUL MOGAN  
 lbstone611@comcast.net  
 T: (781)331-5379  
 F: (781)337-8274

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)