



# LUBE PLUS+

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR END DUMP/773B ED-6**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LP0000507</b>	WC0721157	WC0542411
Sample Date		Client Info		<b>13 Oct 2023</b>	20 Dec 2022	19 Nov 2021
Machine Age	hrs	Client Info		<b>48937</b>	41672	45909
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>21</b>	48	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	7	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

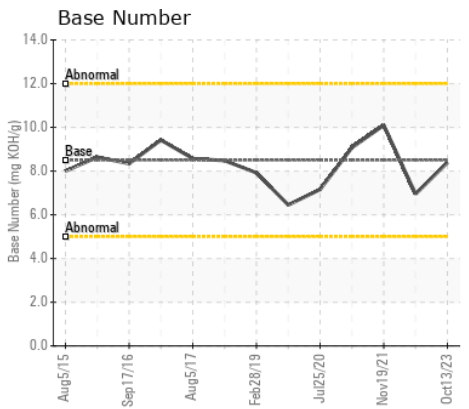
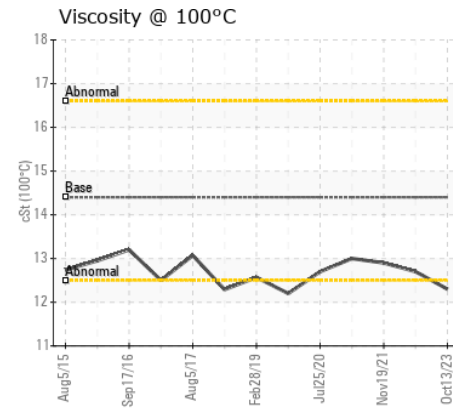
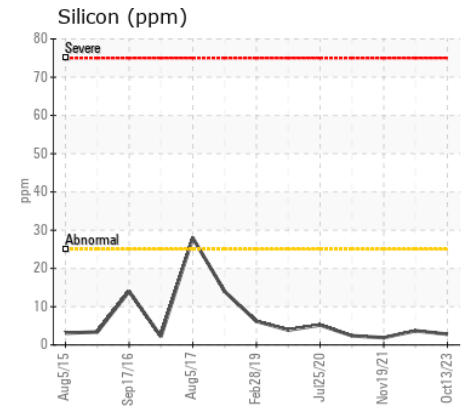
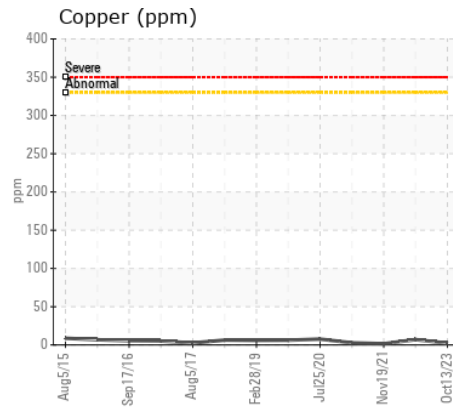
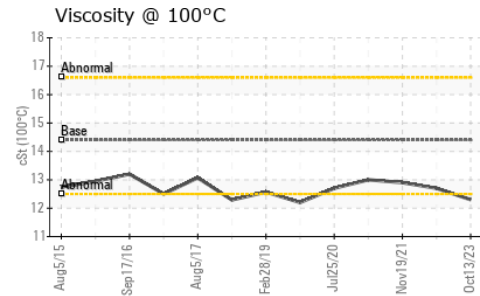
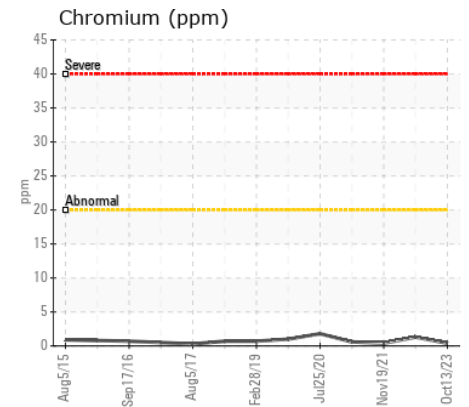
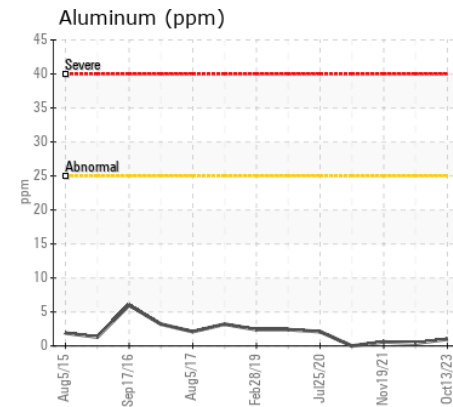
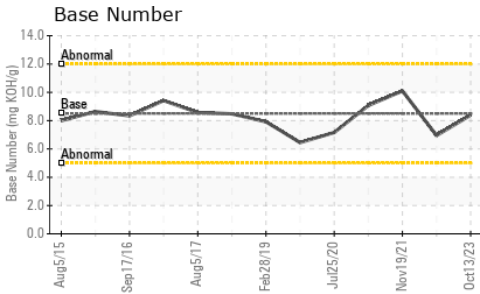
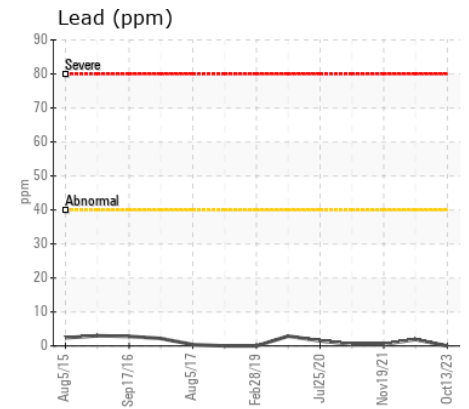
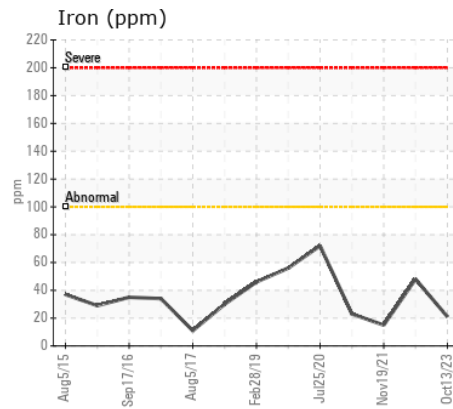
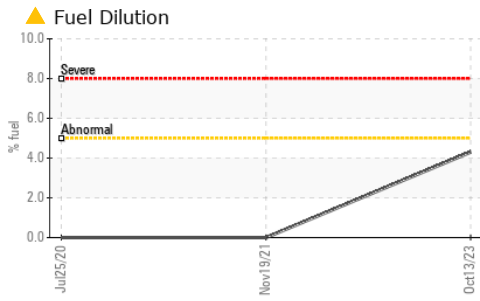
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	4	2
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	1	0
Fuel	%	ASTM D3524	>5	<b>▲ 4.3</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.8	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	11.6	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	23.7	19.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	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	>158	<b>12</b>	11	0
Boron	ppm	ASTM D5185m	250	<b>3</b>	9	13
Barium	ppm	ASTM D5185m	10	<b>0</b>	12	0
Molybdenum	ppm	ASTM D5185m	100	<b>63</b>	56	59
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>914</b>	777	915
Calcium	ppm	ASTM D5185m	3000	<b>1079</b>	968	1090
Phosphorus	ppm	ASTM D5185m	1150	<b>1046</b>	832	1057
Zinc	ppm	ASTM D5185m	1350	<b>1261</b>	1036	1115
Sulfur	ppm	ASTM D5185m	4250	<b>3097</b>	2628	2635
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.0</b>	22.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.39</b>	6.95	10.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.3</b>	12.7	12.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0000507  
**Lab Number** : 05988301  
**Unique Number** : 10710963  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 24 Oct 2023  
**Tested** : 27 Oct 2023  
**Diagnosed** : 27 Oct 2023 - Wes Davis

**TRESCA BROS SAND & GRAVEL INC**  
 66 MAIN ST  
 MILLIS, MA  
 US 02054

Contact: FRAN ROSSI  
 frossi@trescaconcrete.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)

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