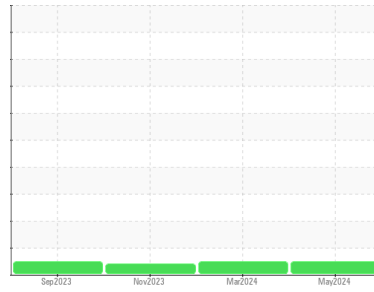




# OIL ANALYSIS REPORT

Area  
**TRACTORS**  
 Machine Id  
**[TRACTORS] 153**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### 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>SBP0006773</b>	SBP0005852	SBP0005635
Sample Date	Client Info			<b>25 May 2024</b>	19 Mar 2024	25 Nov 2023
Machine Age	mls	Client Info		<b>279831</b>	259324	208260
Oil Age	mls	Client Info		<b>25000</b>	259324	25000
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	0.0
Water	WC Method	>0.2		<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	>120	<b>17</b>	24	19
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
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>2</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	5	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>&lt;1</b>	0	9
Barium	ppm	ASTM D5185m	10	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	100	<b>60</b>	70	48
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	450	<b>980</b>	1004	654
Calcium	ppm	ASTM D5185m	3000	<b>1074</b>	1300	1384
Phosphorus	ppm	ASTM D5185m	1150	<b>1053</b>	1082	841
Zinc	ppm	ASTM D5185m	1350	<b>1277</b>	1354	1037
Sulfur	ppm	ASTM D5185m	4250	<b>3135</b>	3419	2878

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	6
Sodium	ppm	ASTM D5185m		<b>2</b>	0	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	4	4

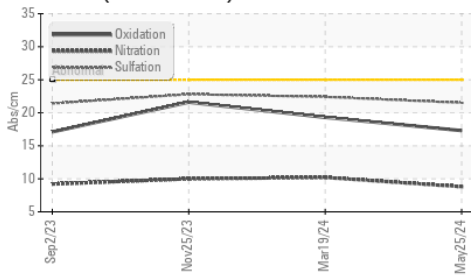
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	<b>0.6</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	10.2	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	22.4	22.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.3</b>	19.3	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.5</b>	6.5	6.7

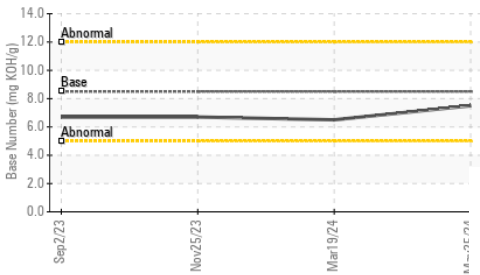


# OIL ANALYSIS REPORT

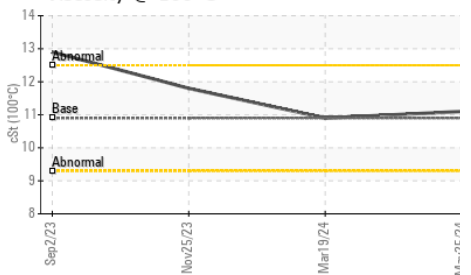
FT-IR (Direct Trend)



Base Number



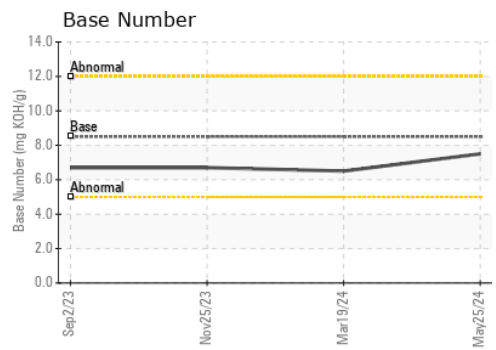
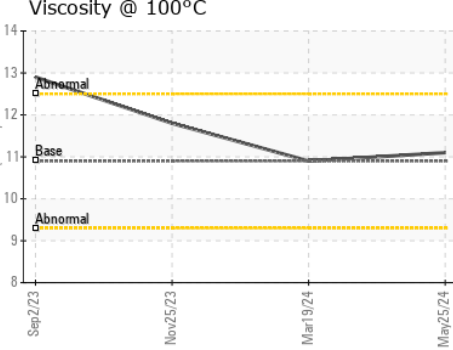
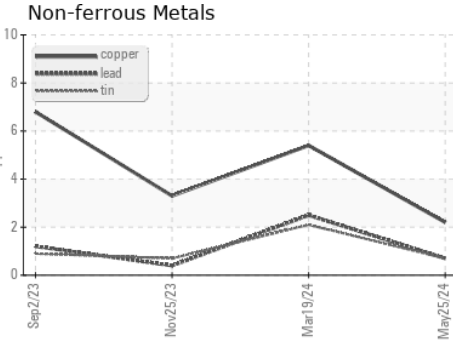
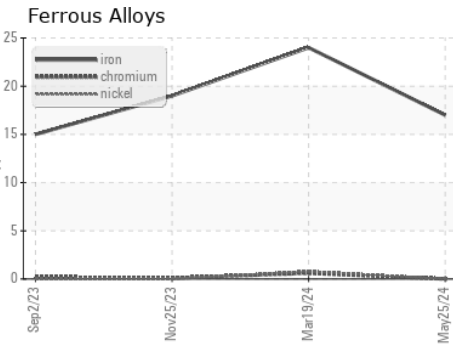
Viscosity @ 100°C



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	11.1	10.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0006773      **Received** : 03 Jun 2024  
**Lab Number** : 06198575      **Tested** : 04 Jun 2024  
**Unique Number** : 11060698      **Diagnosed** : 04 Jun 2024 - Wes Davis  
**Test Package** : FLEET

**ARMSTRONG RENTALS LLC**  
 2600 RIDGEVIEW DRIVE  
 BEATRICE, NE  
 US 68310  
 Contact: JOE ARMSTRONG  
 joea@armstrongrentalsllc.com  
 T: (402)239-9930  
 F:

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)