



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Machine Id  
**93060-3060**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (10 GAL)**

## RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>SBP0007538</b>	SBP0002009	SBP0001883
Sample Date		Client Info		<b>08 May 2024</b>	31 Jul 2023	06 Feb 2023
Machine Age	mls	Client Info		<b>30776</b>	4849	68155
Oil Age	mls	Client Info		<b>10000</b>	4849	10000
Filter Age	mls	Client Info		<b>10000</b>	4849	10000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>37</b>	56	26
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>89</b>	2	11
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	4	4
Lead	ppm	ASTM D5185m	>30	<b>2</b>	2	<1
Copper	ppm	ASTM D5185m	>150	<b>2</b>	3	1
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Sodium and/or potassium levels are high.

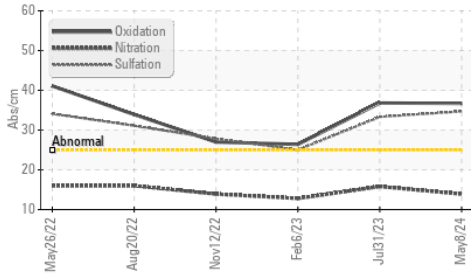
Silicon	ppm	ASTM D5185m	>20	<b>10</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>▲ 145</b>	26	26
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	1.2	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.9</b>	15.8	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>34.7</b>	33.3	25.0
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

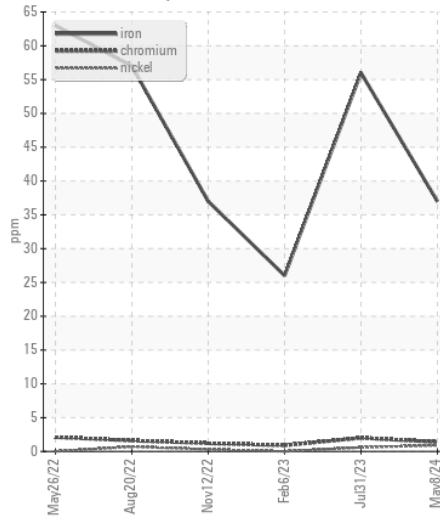
The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<b>▲ 142</b>	26	24
Boron	ppm	ASTM D5185m	0	<b>19</b>	13	32
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>14</b>	57	55
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	0	<b>421</b>	1004	620
Calcium	ppm	ASTM D5185m		<b>1656</b>	1391	1674
Phosphorus	ppm	ASTM D5185m		<b>941</b>	1049	839
Zinc	ppm	ASTM D5185m		<b>1185</b>	1311	1032
Sulfur	ppm	ASTM D5185m		<b>3948</b>	3513	3278
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>36.7</b>	36.8	26.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	<b>3.8</b>	4.6	6.8
Visc @ 100°C	cSt	ASTM D445	14	<b>13.8</b>	15.1	13.7

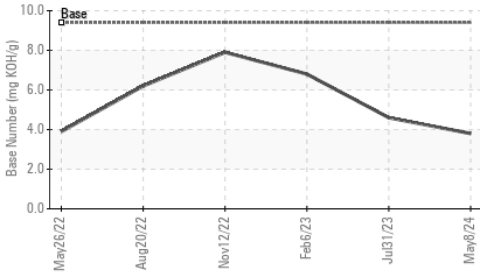
**FT-IR (Direct Trend)**



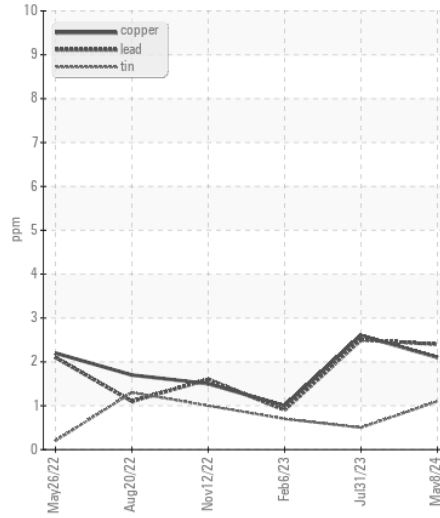
**Ferrous Alloys**



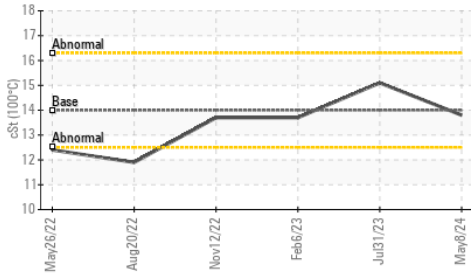
**Base Number**



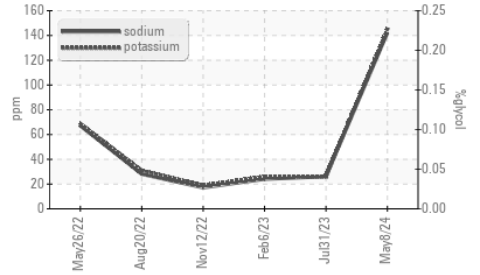
**Non-ferrous Metals**



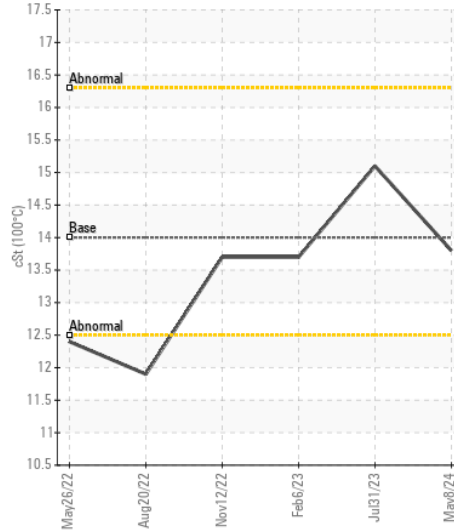
**Viscosity @ 100°C**



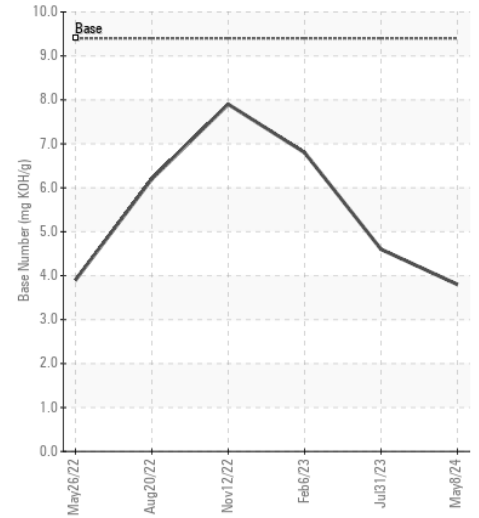
**Glycol Contamination**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0007538 **Received** : 13 May 2024  
**Lab Number** : 06178061 **Tested** : 17 May 2024  
**Unique Number** : 11029387 **Diagnosed** : 17 May 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**Sapp Bros. Fleet - Lincoln Location**

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)

US  
Contact: Service Manager

T:  
F: