



# OIL ANALYSIS REPORT

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

Area  
**OKLAHOMA/102/EG - OTHER SERVICE**  
Machine Id  
**87.40 [OKLAHOMA^102^EG - OTHER SERVICE]**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0914439</b>	WC0908852	WC0821736
Sample Date		Client Info		<b>26 Apr 2024</b>	10 Apr 2024	05 Mar 2024
Machine Age	hrs	Client Info		<b>6426</b>	6405	6245
Oil Age	hrs	Client Info		<b>226</b>	160	110
Filter Age	hrs	Client Info		<b>226</b>	160	110
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	>100	<b>6</b>	8	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>30</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	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.

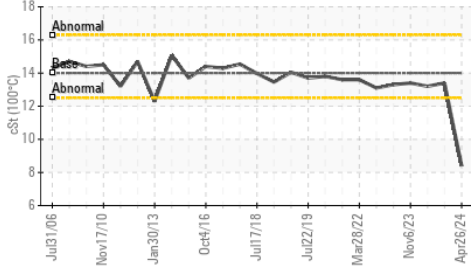
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Fuel	%	ASTM D3524	>5	<b>▲ 3.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>3.8</b>	7.2	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.8</b>	22.1	21.7
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

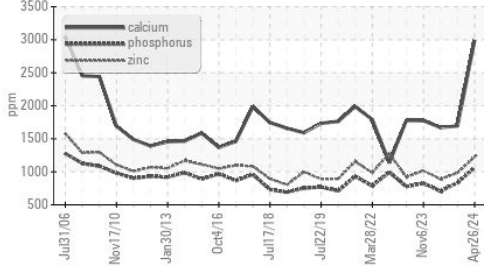
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185m	0	<b>75</b>	61	65
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>2</b>	45	44
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>● 39</b>	563	495
Calcium	ppm	ASTM D5185m		<b>● 2988</b>	1695	1669
Phosphorus	ppm	ASTM D5185m		<b>1062</b>	834	705
Zinc	ppm	ASTM D5185m		<b>1225</b>	982	888
Sulfur	ppm	ASTM D5185m		<b>● 5909</b>	2893	2445
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>8.3</b>	21.2	20.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	<b>10.4</b>	10.5	10.6
Visc @ 100°C	cSt	ASTM D445	14	<b>▲ 8.4</b>	13.4	13.2

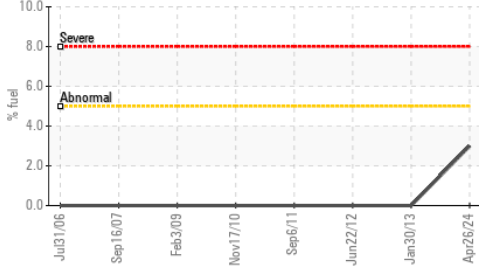
▲ Viscosity @ 100°C



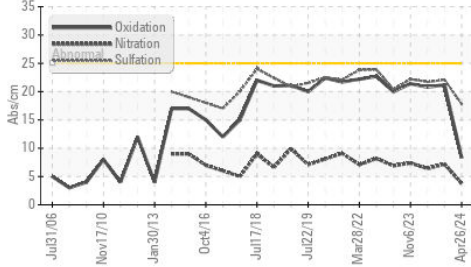
● Additives



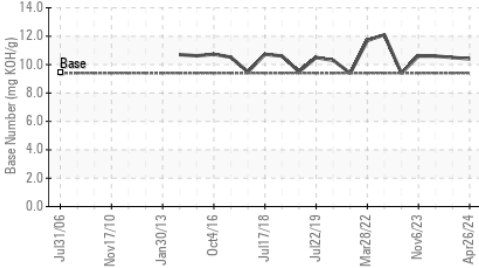
▲ Fuel Dilution



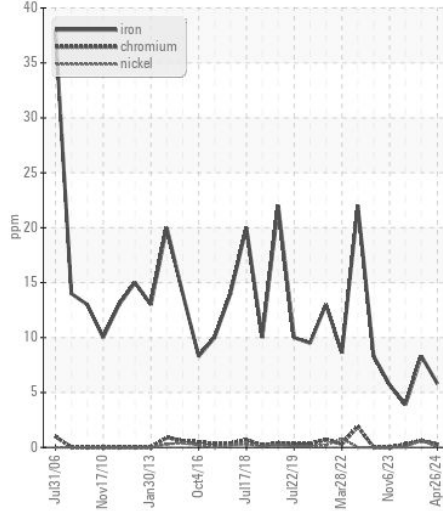
FT-IR (Direct Trend)



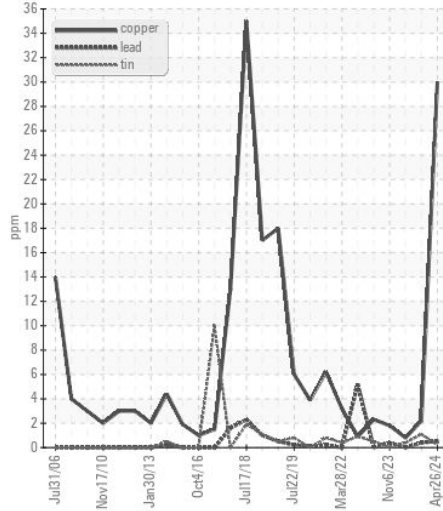
Base Number



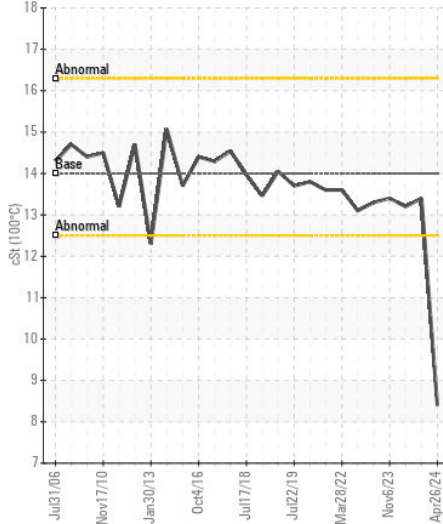
Ferrous Alloys



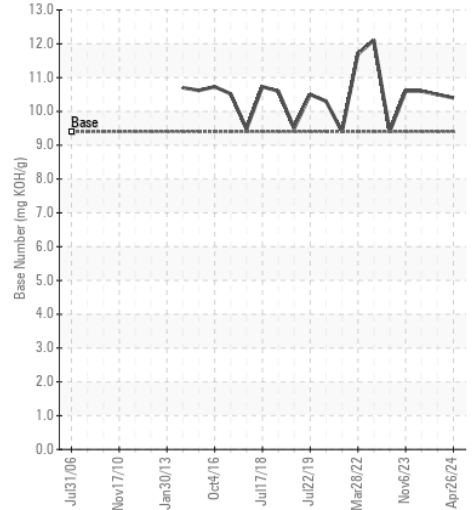
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0914439 **Received** : 09 May 2024  
**Lab Number** : 06174924 **Tested** : 15 May 2024  
**Unique Number** : 11020977 **Diagnosed** : 15 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**SHERWOOD CONSTRUCTION CO INC**  
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 WICHITA, KS  
 US 67213  
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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)