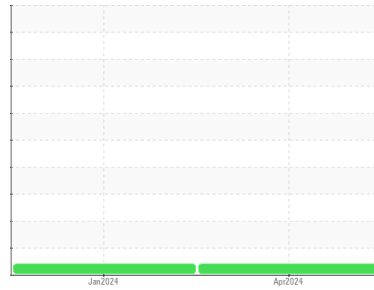




# OIL ANALYSIS REPORT

Area  
**OKLAHOMA/102/TR - BACKHOE LOADER**  
 Machine Id  
**53.204L [OKLAHOMA^102^TR - BACKHOE LOADER]**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC SUPER 1400 15W40 (--- GAL)**

## Sample Rating Trend



## VISCOSITY



### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0914565</b>	WC0886948	---
Sample Date	Client Info		<b>02 Apr 2024</b>	09 Jan 2024	---
Machine Age	hrs	Client Info	<b>1500</b>	917	---
Oil Age	hrs	Client Info	<b>583</b>	250	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>ATTENTION</b>	ATTENTION	---

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>19</b>	42	---
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	---
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>3</b>	5	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>3</b>	7	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>58</b>	33	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>38</b>	34	---
Manganese	ppm	ASTM D5185m	<b>2</b>	9	---
Magnesium	ppm	ASTM D5185m	<b>466</b>	435	---
Calcium	ppm	ASTM D5185m	<b>1626</b>	1520	---
Phosphorus	ppm	ASTM D5185m	<b>778</b>	863	---
Zinc	ppm	ASTM D5185m	<b>924</b>	1029	---
Sulfur	ppm	ASTM D5185m	<b>2703</b>	2618	---

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	15	---
Sodium	ppm	ASTM D5185m	<b>2</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	---
Fuel	%	ASTM D3524 >5	<b>&lt;1.0</b>	1.6	---

### INFRA-RED

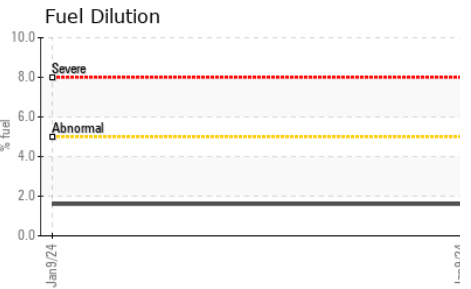
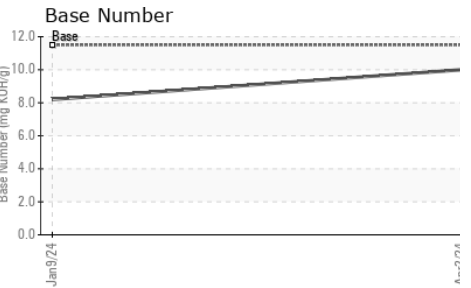
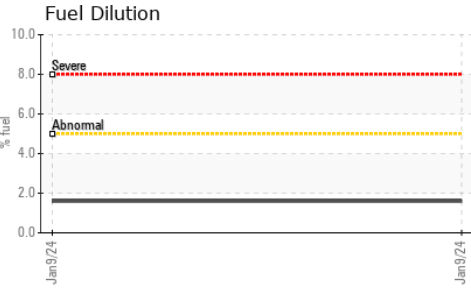
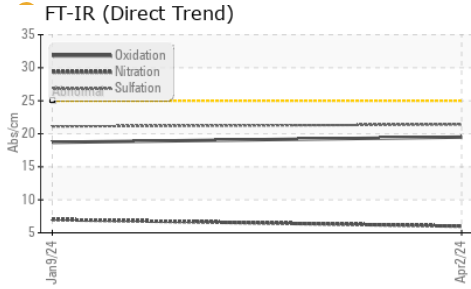
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.0</b>	7.0	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.4</b>	21.1	---

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.5</b>	18.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 11.5	<b>10.0</b>	8.2	---



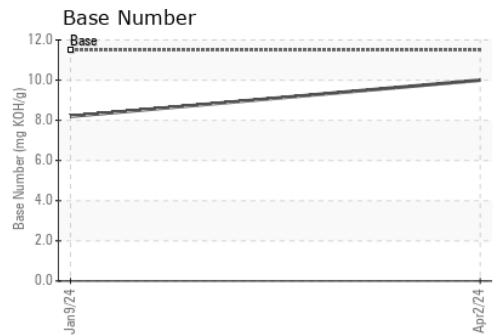
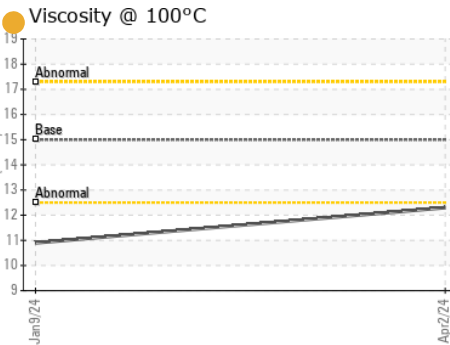
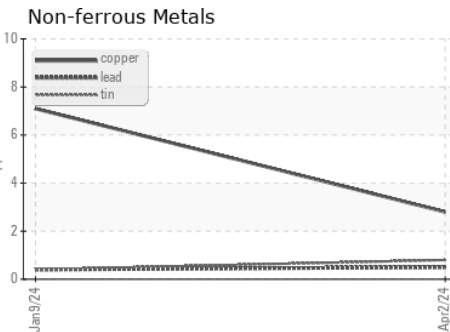
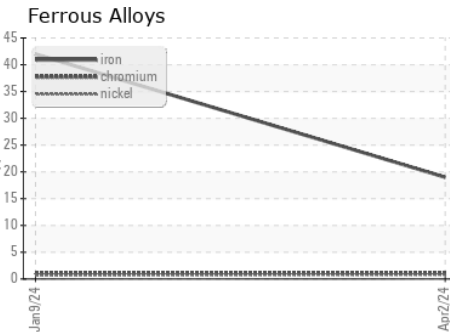
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.0	12.3	10.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0914565

**Lab Number** : 06139484

**Unique Number** : 10964292

**Test Package** : CONST ( Additional Tests: FuelDilution, TBN )

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)

**Received** : 05 Apr 2024

**Tested** : 05 Apr 2024

**Diagnosed** : 06 Apr 2024 - Don Baldrige

**SHERWOOD CONSTRUCTION CO INC**

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WICHITA, KS

US 67213

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