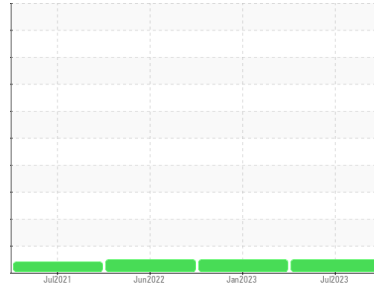




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**112386**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

## DIAGNOSIS

### Recommendation

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>IL0027468</b>	IL0027393	IL0020032
Sample Date	Client Info			<b>25 Jul 2023</b>	19 Jan 2023	02 Jun 2022
Machine Age	mls	Client Info		<b>161356</b>	129708	90897
Oil Age	mls	Client Info		<b>31648</b>	38811	42034
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>28</b>	40	45
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	3	4
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	6	12
Lead	ppm	ASTM D5185m	>40	<b>6</b>	6	3
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	5
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	2
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	<b>30</b>	36	47
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>80</b>	67	22
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m	24	<b>62</b>	45	118
Calcium	ppm	ASTM D5185m	2292	<b>2223</b>	2387	2124
Phosphorus	ppm	ASTM D5185m	1064	<b>991</b>	1066	916
Zinc	ppm	ASTM D5185m	1160	<b>1231</b>	1316	1172
Sulfur	ppm	ASTM D5185m	4996	<b>3987</b>	3678	3049

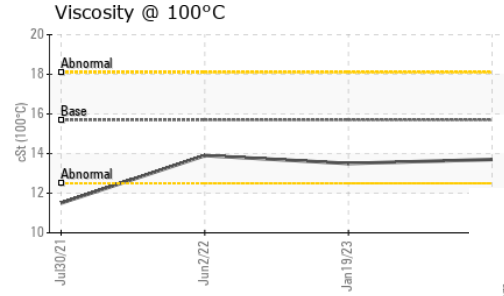
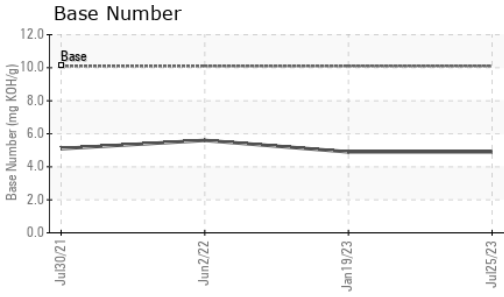
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	9
Sodium	ppm	ASTM D5185m		<b>3</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	15	30

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.6</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.3</b>	11.9	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.1</b>	26.9	28.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.5</b>	22.1	24.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>4.9</b>	4.9	5.6



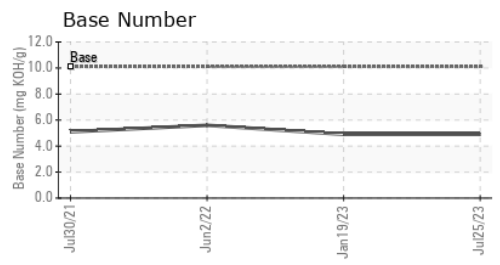
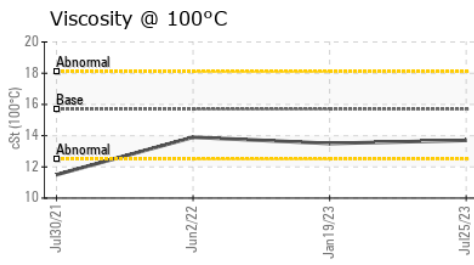
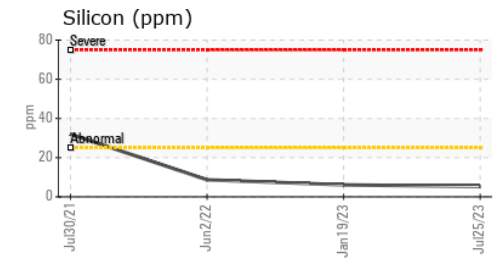
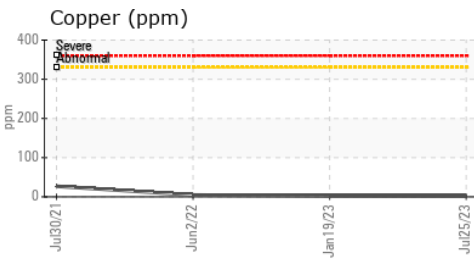
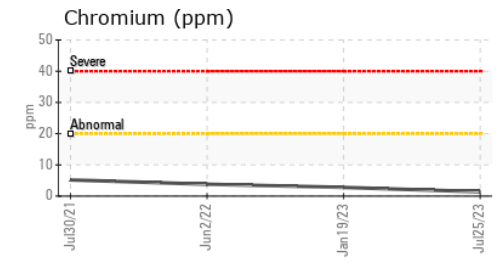
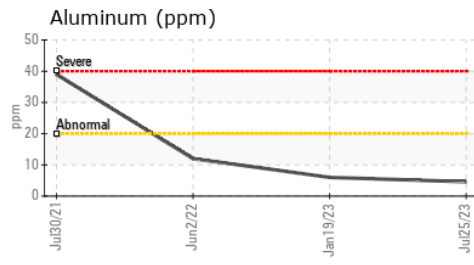
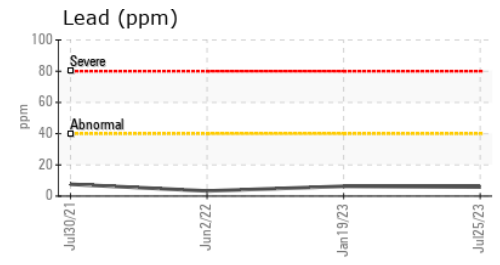
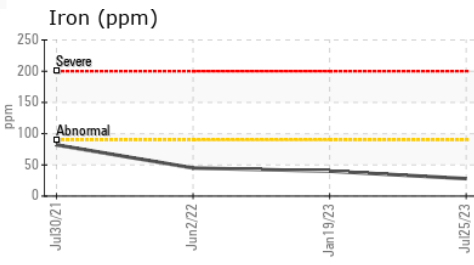
# OIL ANALYSIS REPORT



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	15.7	13.7	13.5

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0027468 **Received** : 22 Aug 2023  
**Lab Number** : 05930605 **Diagnosed** : 23 Aug 2023  
**Unique Number** : 10615876 **Diagnostician** : Sean Felton  
**Test Package** : MOB1+

**IDEALISE OF NORTHWEST WI**  
 611 HANSEN ROAD  
 GREEN BAY, WI  
 US 54304  
 Contact: GARY KOLTZ  
 gkoltz@pcitrucks.com  
 T: (920)499-6200  
 F: (920)499-5332

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)