



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

Machine Id  
**WIRTGEN W380CRI 04CR-0005**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0179764</b>	JR0179870	JR0164267
Sample Date		Client Info		<b>21 May 2024</b>	02 Nov 2023	08 Aug 2023
Machine Age	hrs	Client Info		<b>2262</b>	2056	1752
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	11	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	2
Copper	ppm	ASTM D5185m	>330	<b>4</b>	19	74
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

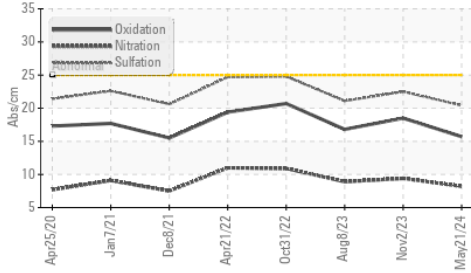
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	8	8
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	9.4	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	22.5	21.1
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

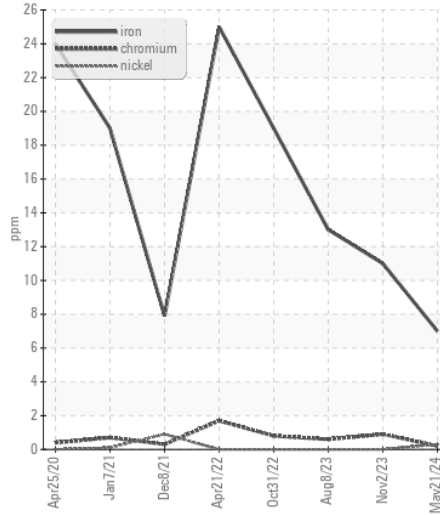
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>3</b>	<1	1
Boron	ppm	ASTM D5185m	250	<b>253</b>	218	225
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>240</b>	246	238
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>846</b>	791	835
Calcium	ppm	ASTM D5185m	3000	<b>1408</b>	1370	1527
Phosphorus	ppm	ASTM D5185m	1150	<b>893</b>	781	895
Zinc	ppm	ASTM D5185m	1350	<b>1098</b>	1057	1134
Sulfur	ppm	ASTM D5185m	4250	<b>3586</b>	2912	3545
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	18.5	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.8</b>	8.2	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.5</b>	13.9	13.4

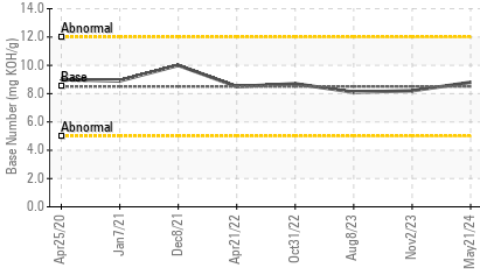
**FT-IR (Direct Trend)**



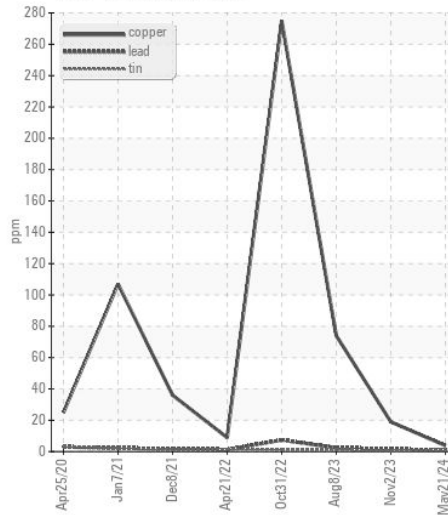
**Ferrous Alloys**



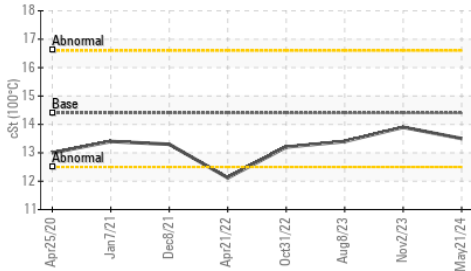
**Base Number**



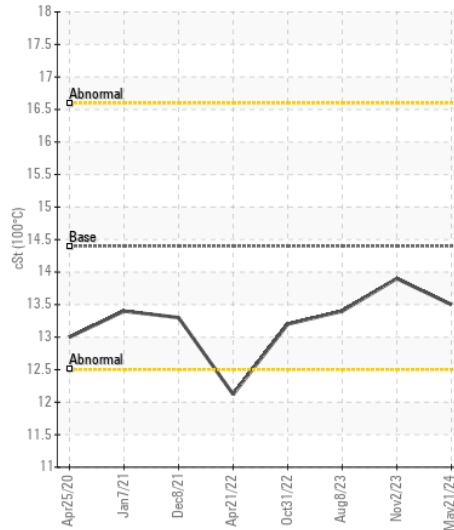
**Non-ferrous Metals**



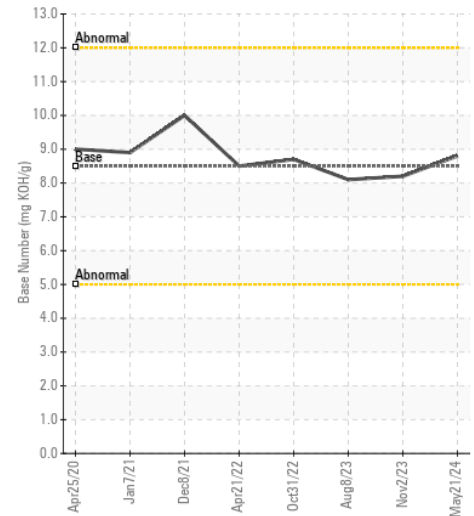
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179764 **Received** : 23 May 2024  
**Lab Number** : 06188968 **Tested** : 24 May 2024  
**Unique Number** : 11045720 **Diagnosed** : 24 May 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - ASHLAND**  
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 F: (804)798-0292

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)