



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area  
**MACHINE SHOP**  
Machine Id  
**0-9098-0000 STRADDLE CARRIER**  
Component  
**Main Diesel Engine**  
Fluid  
**ROYAL PURPLE 15W40 CI-4 (HD) (23 QTS)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0903666</b>	WC0867044	WC0867031
Sample Date		Client Info		<b>17 Apr 2024</b>	18 Mar 2024	06 Feb 2024
Machine Age	hrs	Client Info		<b>1265</b>	21168	20594
Oil Age	hrs	Client Info		<b>1265</b>	21168	1059
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>43</b>	30	9
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	1
Lead	ppm	ASTM D5185m	>40	<b>5</b>	3	2
Copper	ppm	ASTM D5185m	>330	<b>4</b>	2	2
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>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

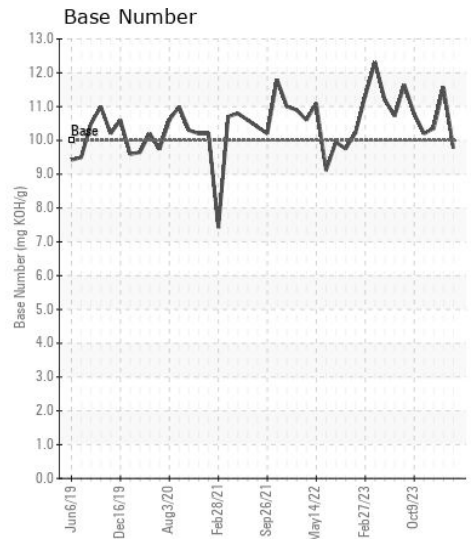
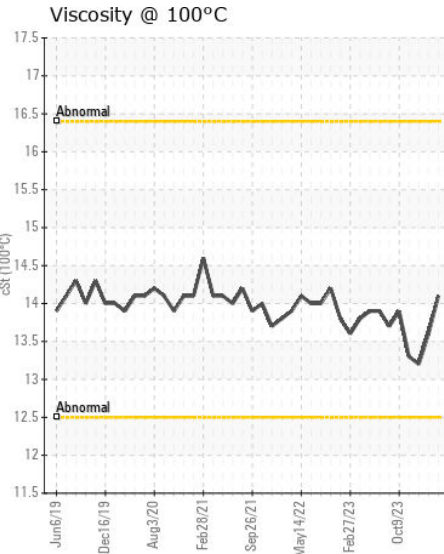
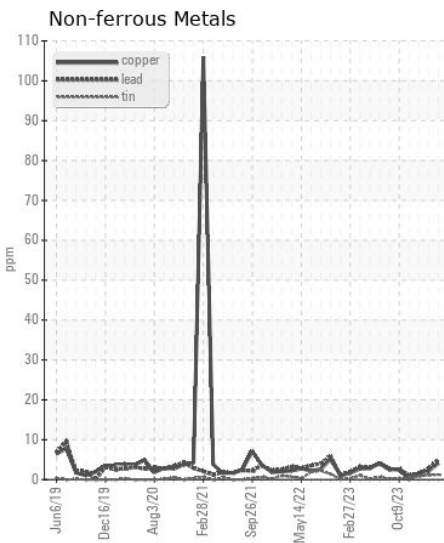
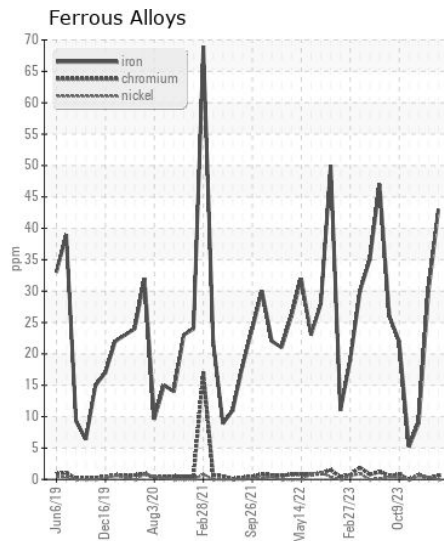
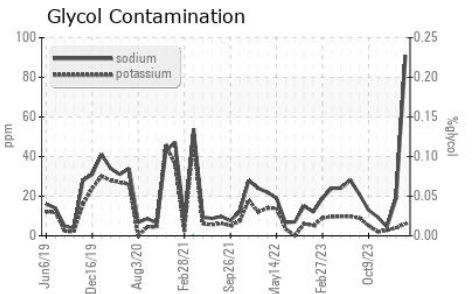
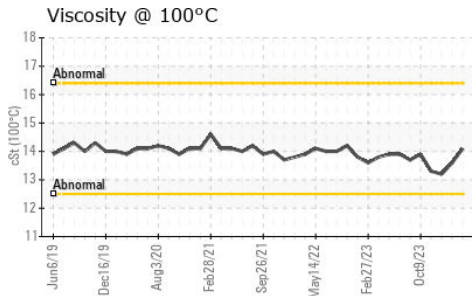
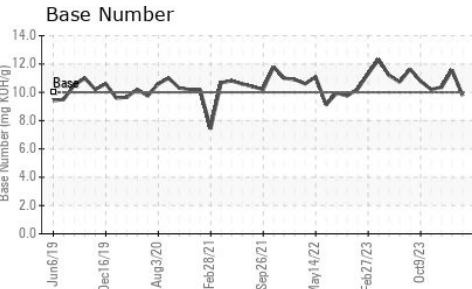
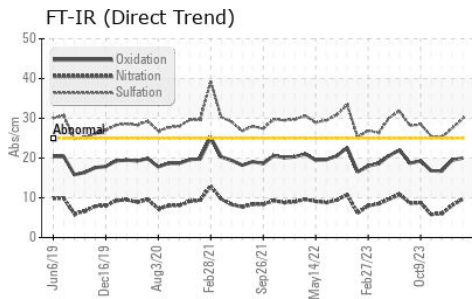
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	12	15
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	4	3
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>0.3</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	8.1	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>29.9</b>	27.5	25.2
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		<b>91</b>	19	4
Boron	ppm	ASTM D5185m		<b>0</b>	4	2
Barium	ppm	ASTM D5185m		<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m	120	<b>94</b>	87	88
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>19</b>	19	21
Calcium	ppm	ASTM D5185m	3000	<b>3494</b>	3446	3020
Phosphorus	ppm	ASTM D5185m	1150	<b>1156</b>	1159	970
Zinc	ppm	ASTM D5185m	1250	<b>1414</b>	1379	1161
Sulfur	ppm	ASTM D5185m	16000	<b>19493</b>	19400	18237
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	19.5	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.77</b>	11.57	10.36
Visc @ 100°C	cSt	ASTM D445		<b>14.1</b>	13.6	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903666 **Received** : 18 Apr 2024  
**Lab Number** : 06153328 **Tested** : 22 Apr 2024  
**Unique Number** : 10983406 **Diagnosed** : 22 Apr 2024 - Sean Felton  
**Test Package** : IND 2 ( Additional Tests: Glycol )

**ALLVAC - MACHINE SHOP**  
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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)