



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

Machine Id  
**242118**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- QTS)**

### RECOMMENDATION

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

### WEAR

All component wear rates are normal.

### CONTAMINATION

Fuel content negligible. 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.

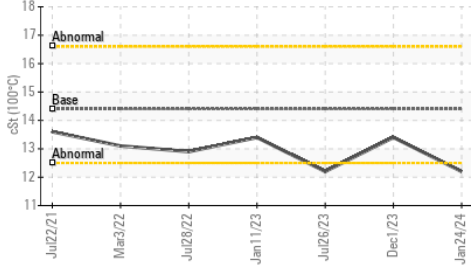
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL06085222</b>	IL06035589	IL05931881
Sample Date		Client Info		<b>24 Jan 2024</b>	01 Dec 2023	26 Jul 2023
Machine Age	hrs	Client Info		<b>4551</b>	4313	3691
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>MARGINAL</b>	NORMAL	ABNORMAL

Iron	ppm	ASTM D5185m	>100	<b>17</b>	35	36
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	13	11
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	3	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

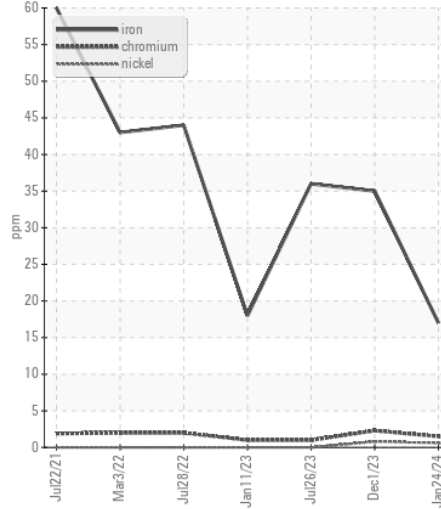
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	17	4
Fuel	%	ASTM D3524	>5	<b>0.7</b>	1.5	▲ 5.6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.6	1.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	11.9	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	23.9	23.1
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

Sodium	ppm	ASTM D5185m	>216	<b>0</b>	0	2
Boron	ppm	ASTM D5185m	250	<b>4</b>	0	5
Barium	ppm	ASTM D5185m	10	<b>0</b>	12	0
Molybdenum	ppm	ASTM D5185m	100	<b>67</b>	72	58
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	450	<b>1013</b>	1075	917
Calcium	ppm	ASTM D5185m	3000	<b>1147</b>	1229	1182
Phosphorus	ppm	ASTM D5185m	1150	<b>1082</b>	1096	989
Zinc	ppm	ASTM D5185m	1350	<b>1347</b>	1388	1189
Sulfur	ppm	ASTM D5185m	4250	<b>3215</b>	3098	3115
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	22.6	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.9</b>	7.5	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	▲ <b>12.2</b>	13.4	▲ 12.2

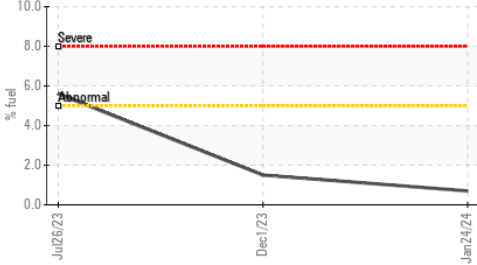
▲ Viscosity @ 100°C



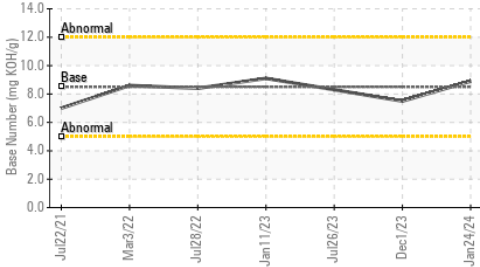
Ferrous Alloys



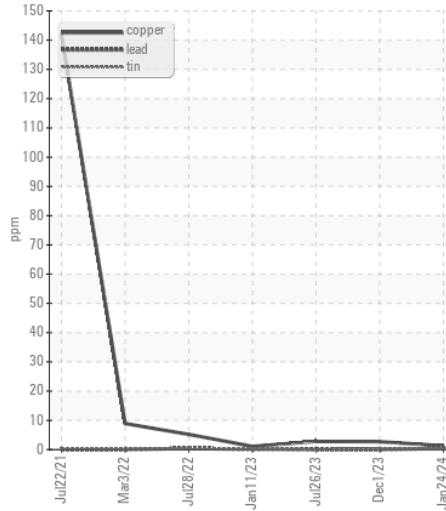
Fuel Dilution



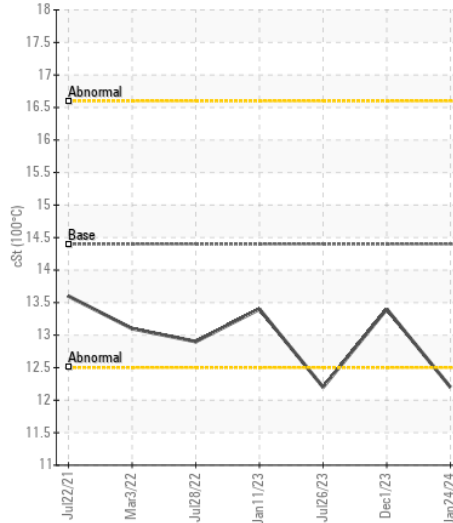
Base Number



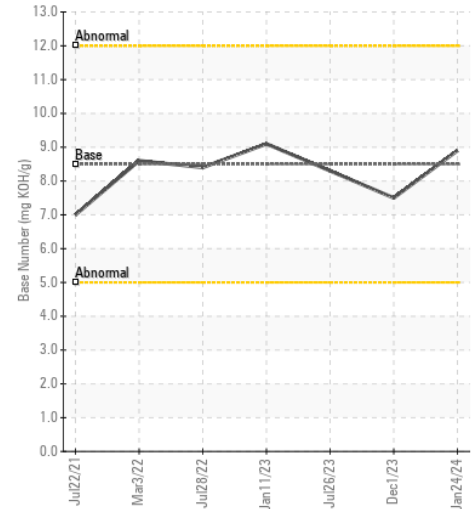
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : IL06085222

Lab Number : 06085222

Unique Number : 10872667

Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

Received : 09 Feb 2024

Tested : 13 Feb 2024

Diagnosed : 13 Feb 2024 - Jonathan Hester

RUSH TRUCK LEASING - CINCINNATI IDEALEASE

11777 HIGHWAY DRIVE

CINCINNATI, OH

US 45241

Contact: ROBERT BAIER

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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)