



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area Machine Id **NSE-AL-TRACTOR (NEW SOUTH EXPRESS)**

Component **AUTOCAR NSE21013**

Fluid **Diesel Engine**

DIESEL ENGINE OIL SAE 40 (17 QTS)

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		NL0002284	NL0002150	NL0001930
Sample Date		Client Info		19 Jun 2024	02 Apr 2024	20 Dec 2023
Machine Age	hrs	Client Info		12614	11890	10270
Oil Age	hrs	Client Info		1010	1493	3327
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	46	53	30
Chromium	ppm	ASTM D5185m	>20	2	3	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	9	3
Lead	ppm	ASTM D5185m	>40	1	<1	0
Copper	ppm	ASTM D5185m	>330	1	2	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

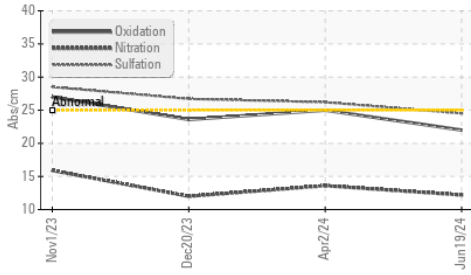
Silicon	ppm	ASTM D5185m	>25	4	6	3
Potassium	ppm	ASTM D5185m	>20	5	12	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.5	1.7	1.3
Nitration	Abs/cm	*ASTM D7624	>20	12.2	13.6	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.5	26.2	26.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

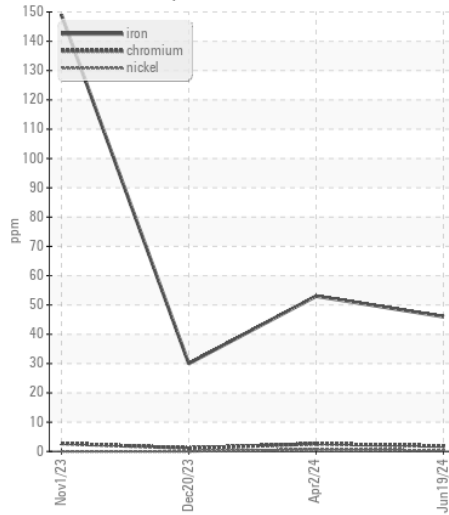
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	1	<1	2
Boron	ppm	ASTM D5185m	250	4	6	65
Barium	ppm	ASTM D5185m	10	0	1	0
Molybdenum	ppm	ASTM D5185m	100	60	57	4
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m	450	942	842	96
Calcium	ppm	ASTM D5185m	3000	1221	1173	1991
Phosphorus	ppm	ASTM D5185m	1150	1070	980	886
Zinc	ppm	ASTM D5185m	1350	1340	1171	1118
Sulfur	ppm	ASTM D5185m	4250	3506	2884	3060
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.0	25.0	23.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.4	5.5	5.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	13.7	13.9

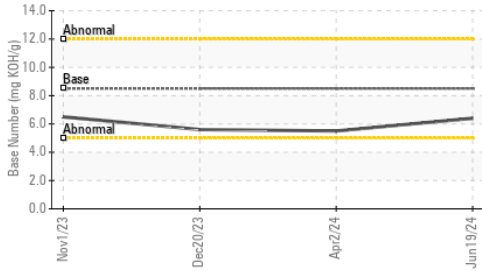
FT-IR (Direct Trend)



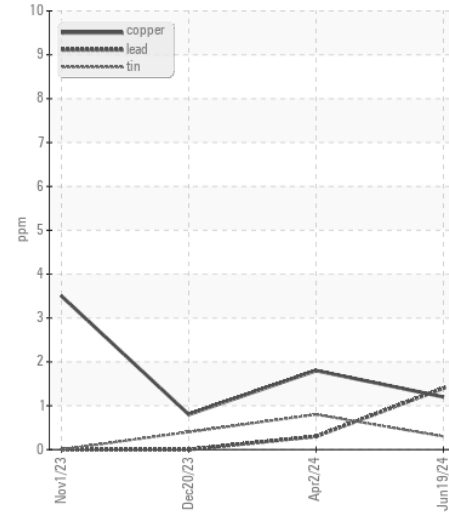
Ferrous Alloys



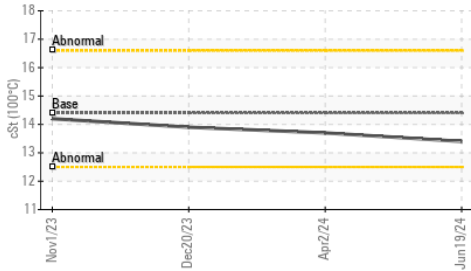
Base Number



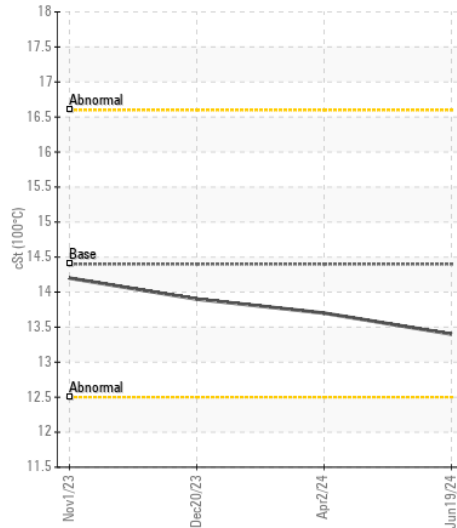
Non-ferrous Metals



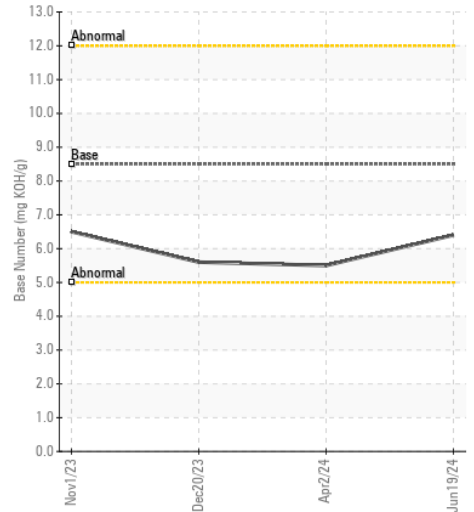
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : NL0002284

Lab Number : 06219033

Unique Number : 11097230

Test Package : FLEET

Received : 24 Jun 2024

Tested : 25 Jun 2024

Diagnosed : 25 Jun 2024 - Wes Davis

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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)