



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 2026

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 10W30 (42 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0926068	WC0405356	WC0406557
Sample Date		Client Info		02 Jul 2024	21 Mar 2020	23 Nov 2019
Machine Age	hrs	Client Info		8396	129387	100429
Oil Age	hrs	Client Info		8396	28958	33270
Filter Age	hrs	Client Info		8396	0	33270
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	>165	16	23	18
Chromium	ppm	ASTM D5185m	>5	1	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	6	14
Lead	ppm	ASTM D5185m	>150	2	3	2
Copper	ppm	ASTM D5185m	>90	2	7	5
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	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.

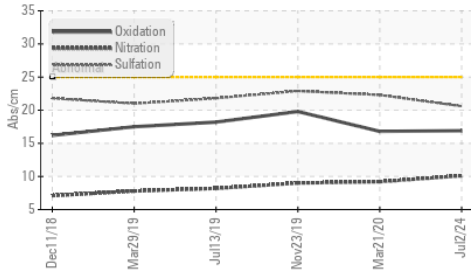
Silicon	ppm	ASTM D5185m	>35	3	6	10
Potassium	ppm	ASTM D5185m	>20	3	19	42
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.4	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.1	9.2	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	22.3	22.9
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

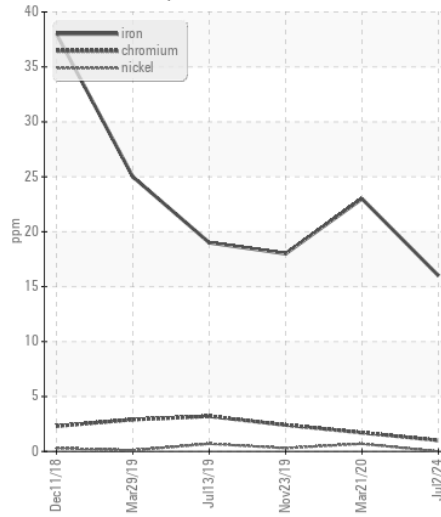
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	3	2
Boron	ppm	ASTM D5185m	250	8	24	42
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	56	35	55
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	830	207	397
Calcium	ppm	ASTM D5185m	3000	1219	2203	1823
Phosphorus	ppm	ASTM D5185m	1150	1018	818	952
Zinc	ppm	ASTM D5185m	1350	1215	1053	1200
Sulfur	ppm	ASTM D5185m	4250	2798	2548	2454
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	16.8	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.1	5.6	7.3
Visc @ 100°C	cSt	ASTM D445	10.9	11.1	12.5	14.0

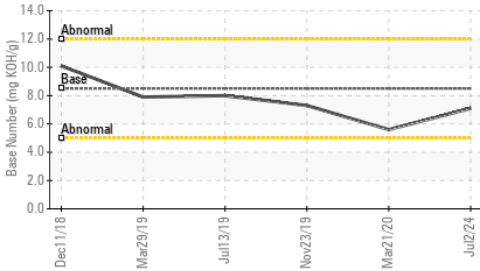
FT-IR (Direct Trend)



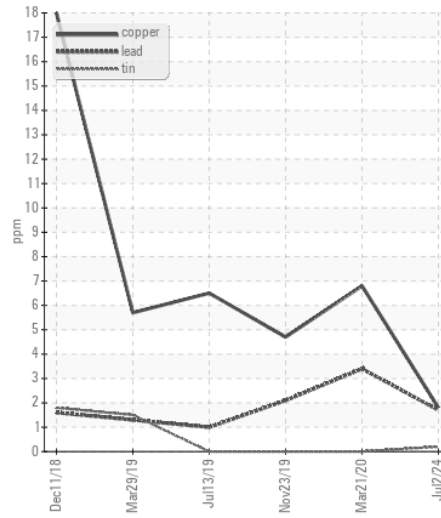
Ferrous Alloys



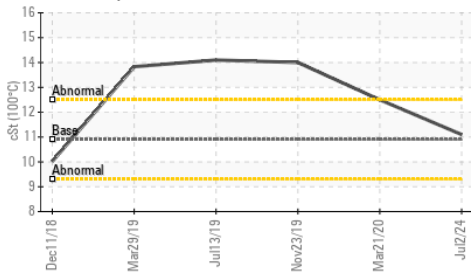
Base Number



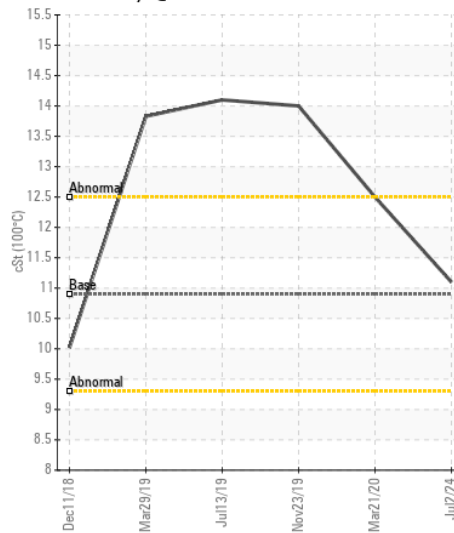
Non-ferrous Metals



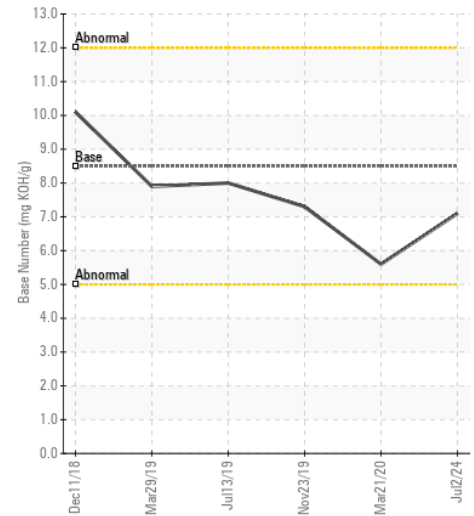
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0926068 **Received** : 12 Jul 2024
Lab Number : 06234536 **Tested** : 15 Jul 2024
Unique Number : 11123370 **Diagnosed** : 15 Jul 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

CARCO TRANSPORTATION
 3403 EAST ROOSEVELT ROAD
 LITTLE ROCK, AR
 US 72206
 Contact: DENNIS CATES
 denniscales@carcotrans.com
 T: (800)967-0777
 F:

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)