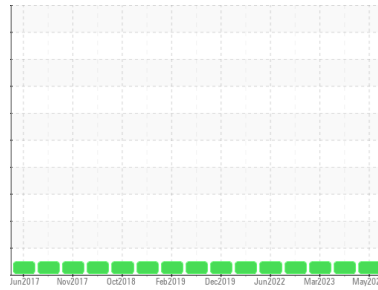




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CONSTRUCTORS, INC

Machine Id
12-1251

Component
Diesel Engine

Fluid
MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	SBP0007190	SBP0004523	SBP0003793
Sample Date	Client Info	03 May 2024	07 Jul 2023	17 Mar 2023
Machine Age	hrs Client Info	23397	22992	22405
Oil Age	hrs Client Info	405	587	707
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	26	10	12
Chromium	ppm ASTM D5185m >20	1	<1	<1
Nickel	ppm ASTM D5185m >4	<1	<1	<1
Titanium	ppm ASTM D5185m	<1	<1	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	5	<1	1
Lead	ppm ASTM D5185m >40	4	13	10
Copper	ppm ASTM D5185m >330	5	3	4
Tin	ppm ASTM D5185m >15	1	<1	<1
Vanadium	ppm ASTM D5185m	<1	<1	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	10	25	10
Barium	ppm ASTM D5185m	0	1	0
Molybdenum	ppm ASTM D5185m	57	54	58
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	820	829	894
Calcium	ppm ASTM D5185m	1152	1538	1217
Phosphorus	ppm ASTM D5185m	975	972	1017
Zinc	ppm ASTM D5185m	1166	1232	1239
Sulfur	ppm ASTM D5185m	3582	3505	3160

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	12	4	3
Sodium	ppm ASTM D5185m	5	5	4
Potassium	ppm ASTM D5185m >20	5	3	4

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.3	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	8.0	9.1	9.5
Sulfation	Abs/.1mm *ASTM D7415 >30	20.4	22.6	21.1

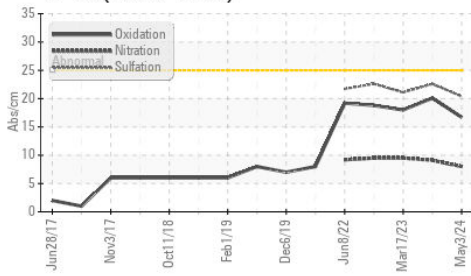
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	16.7	20.1	18.0
Base Number (BN)	mg KOH/g ASTM D2896 10.5	8.2	8.6	8.3

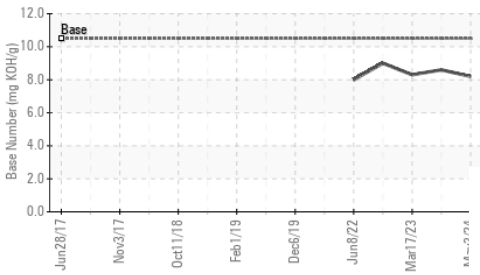


OIL ANALYSIS REPORT

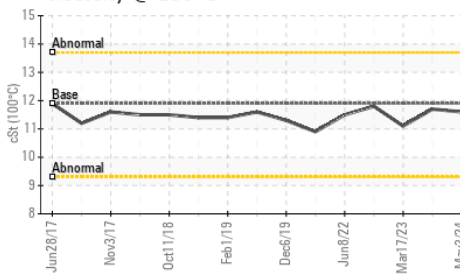
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

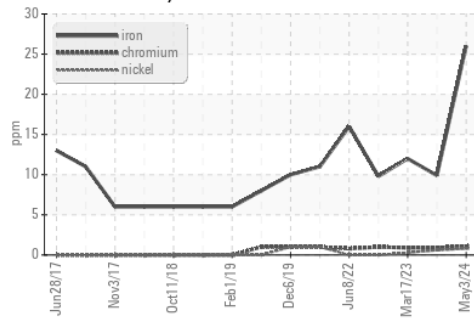


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

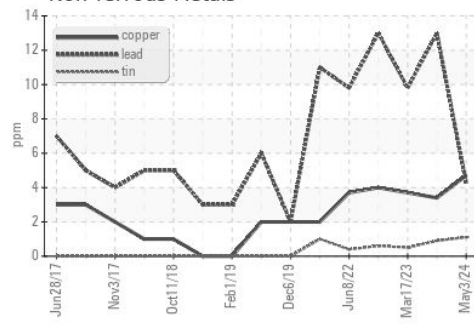
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.6	11.7

GRAPHS

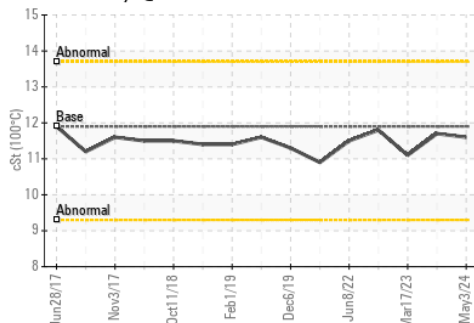
Ferrous Alloys



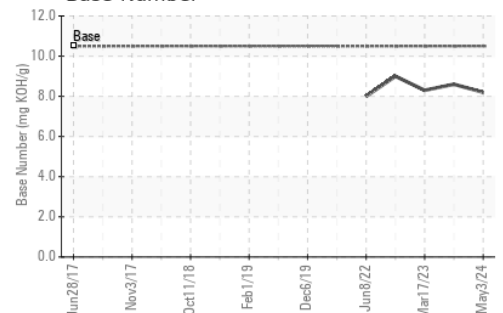
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007190 **Received** : 13 May 2024
Lab Number : **06178076** **Tested** : 14 May 2024
Unique Number : 11029402 **Diagnosed** : 15 May 2024 - Sean Felton
Test Package : FLEET

Constructors Inc. - 603659
 1815 Y Street
 Lincoln, NE
 US 68508
 Contact: Loren Michael
 LorenM@constructorslincoln.com
 T: (402)434-2157
 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)