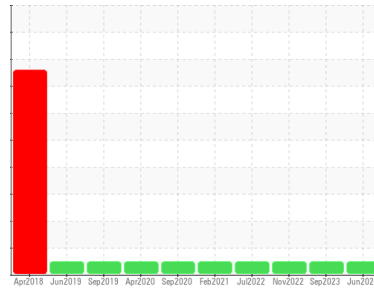




OIL ANALYSIS REPORT

Area
CONSTRUCTORS, INC
 Machine Id
025067
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

Sample Rating Trend



NORMAL



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		SBP0006782	SBP0004908	SBP0002103
Sample Date	Client Info		10 Jun 2024	29 Sep 2023	14 Nov 2022
Machine Age	hrs	Client Info	6872	6373	5781
Oil Age	hrs	Client Info	499	592	606
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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 >120	4	10	12
Chromium	ppm	ASTM D5185m >20	0	<1	<1
Nickel	ppm	ASTM D5185m >5	<1	0	<1
Titanium	ppm	ASTM D5185m >2	0	0	<1
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >20	2	0	2
Lead	ppm	ASTM D5185m >40	1	3	3
Copper	ppm	ASTM D5185m >330	3	8	3
Tin	ppm	ASTM D5185m >15	0	1	1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	2	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<1	<1	13
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	56	58	42
Manganese	ppm	ASTM D5185m	1	<1	<1
Magnesium	ppm	ASTM D5185m	910	951	711
Calcium	ppm	ASTM D5185m	1114	1130	1318
Phosphorus	ppm	ASTM D5185m	967	992	884
Zinc	ppm	ASTM D5185m	1170	1229	1036
Sulfur	ppm	ASTM D5185m	3260	2959	3222

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	6
Sodium	ppm	ASTM D5185m	6	6	8
Potassium	ppm	ASTM D5185m >20	4	<1	2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.8	8.7	10.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.9	19.9	22.7

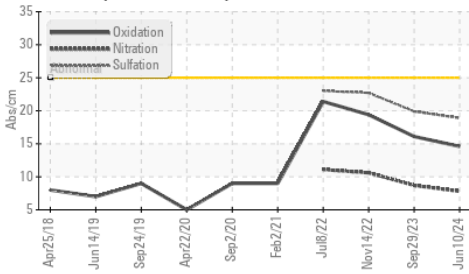
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.6	16.1	19.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.5	7.7	7.1	8.4

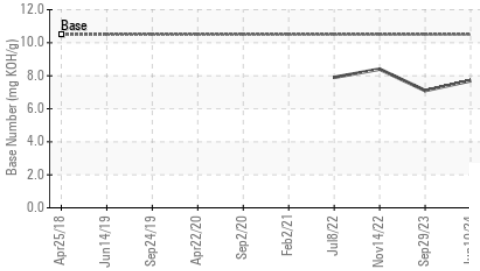


OIL ANALYSIS REPORT

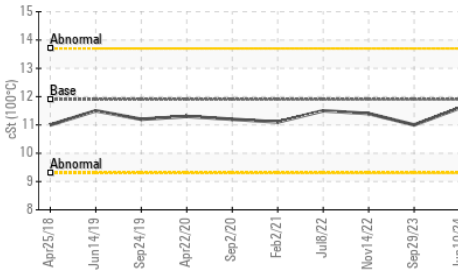
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

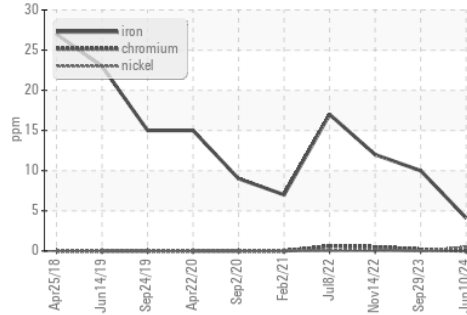


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

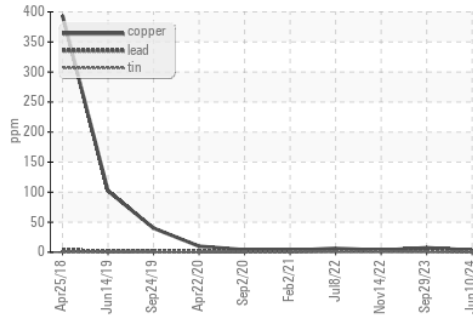
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.6	11.0

GRAPHS

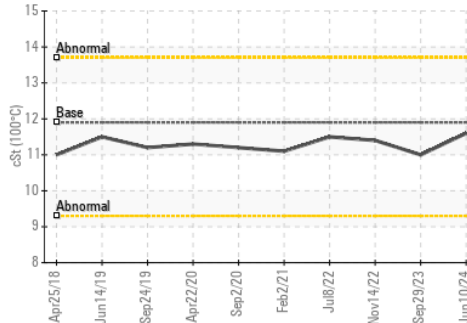
Ferrous Alloys



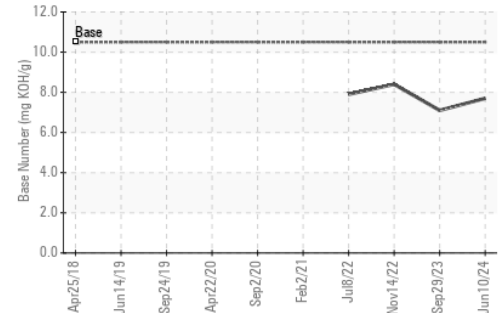
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : SBP0006782

Lab Number : 06209429

Unique Number : 11076890

Test Package : FLEET

Received : 13 Jun 2024

Tested : 17 Jun 2024

Diagnosed : 17 Jun 2024 - Wes Davis

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)