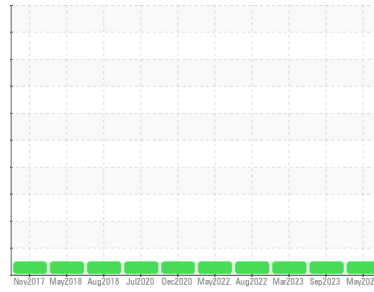




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CONSTRUCTORS, INC

Machine Id
141850

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		SBP0007154	SBP0004589	SBP0003712
Sample Date	Client Info		09 May 2024	07 Sep 2023	15 Mar 2023
Machine Age	hrs	Client Info	5211	4894	4525
Oil Age	hrs	Client Info	317	369	410
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	10	11	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	5
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	0	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		6	60	17
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		61	44	57
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		904	592	848
Calcium	ppm	ASTM D5185m		1135	1756	1297
Phosphorus	ppm	ASTM D5185m		1006	776	951
Zinc	ppm	ASTM D5185m		1212	952	1162
Sulfur	ppm	ASTM D5185m		3489	2931	2868

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	5	6	8
Sodium	ppm	ASTM D5185m		<1	3	<1
Potassium	ppm	ASTM D5185m	>20	2	<1	2

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.1	6.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	21.2	19.1

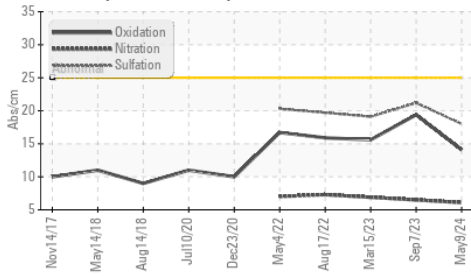
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	19.4	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	9.0	9.6	9.5

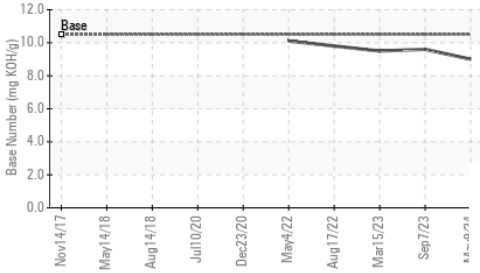


OIL ANALYSIS REPORT

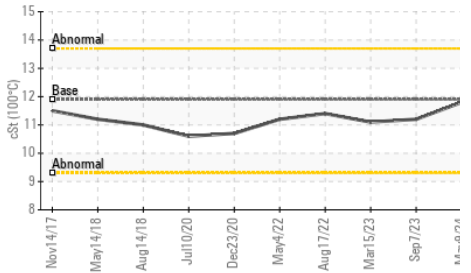
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

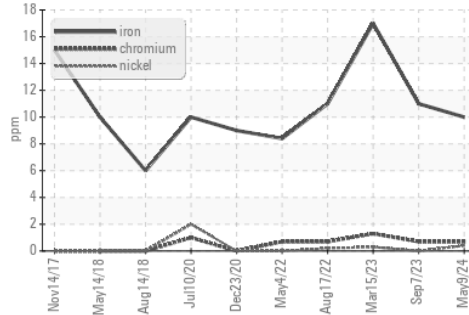


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

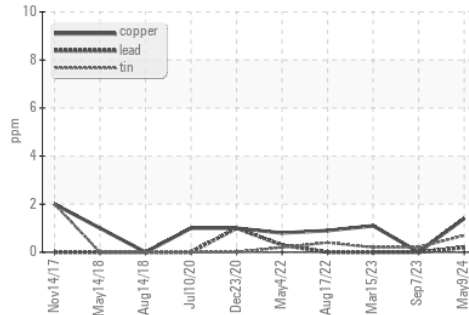
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.8	11.2

GRAPHS

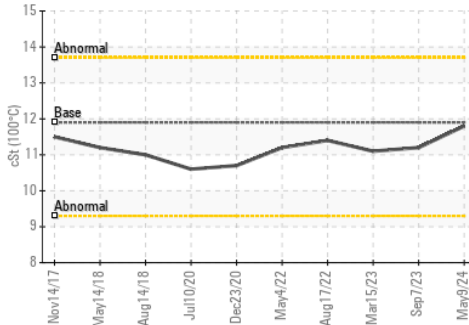
Ferrous Alloys



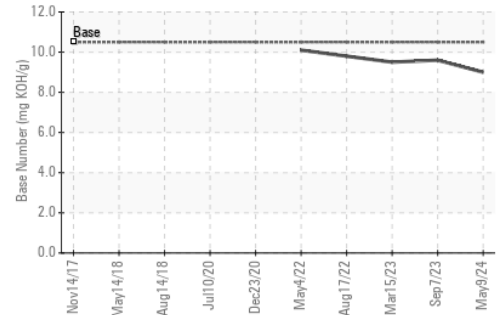
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007154 **Received** : 13 May 2024
Lab Number : 06178082 **Tested** : 14 May 2024
Unique Number : 11029408 **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)