

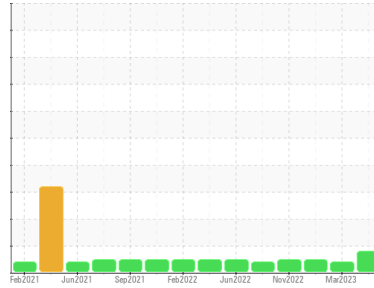


PROBLEM SUMMARY



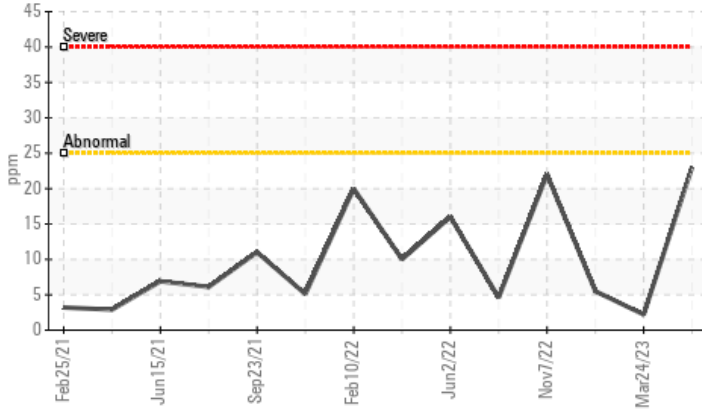
Area
COLORADO/443/EG - LOADER
 Machine Id
46.94L [COLORADO^443^EG - LOADER]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Aluminum (ppm)



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ATTENTION	NORMAL
Aluminum	ppm	ASTM D5185m	>25	▲ 23	2	6

Customer Id: SHEWIC
 Sample No.: WC0823146
 Lab Number: 05938599
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

24 Mar 2023 Diag: Don Baldrige

VISCOACITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

[view report](#)



21 Dec 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



07 Nov 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



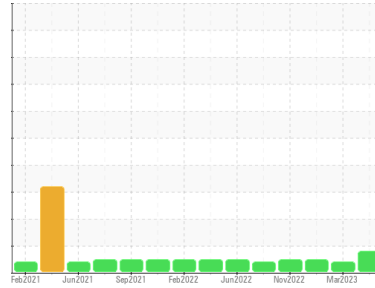


OIL ANALYSIS REPORT



Area
COLORADO/443/EG - LOADER
 Machine Id
46.94L [COLORADO^443^EG - LOADER]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The aluminum level is abnormal. All other 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		WC0823146	WC0766156	WC0766097
Sample Date	Client Info		25 Aug 2023	24 Mar 2023	21 Dec 2022
Machine Age	hrs	Client Info	4122	3868	3737
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ATTENTION	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	1.2	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	24	14	11
Chromium	ppm	ASTM D5185m >20	3	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m >2	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	▲ 23	2	6
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	1	10	<1
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	57	58	58
Barium	ppm	ASTM D5185m 0	0	0	1
Molybdenum	ppm	ASTM D5185m 0	34	39	39
Manganese	ppm	ASTM D5185m	<1	2	0
Magnesium	ppm	ASTM D5185m 0	564	496	479
Calcium	ppm	ASTM D5185m	1719	1944	1727
Phosphorus	ppm	ASTM D5185m	786	840	745
Zinc	ppm	ASTM D5185m	974	1048	898
Sulfur	ppm	ASTM D5185m	3284	3369	2416

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	13	1
Sodium	ppm	ASTM D5185m	2	4	0
Potassium	ppm	ASTM D5185m >20	<1	1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	7.1	7.1	6.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.9	22.8	21.7

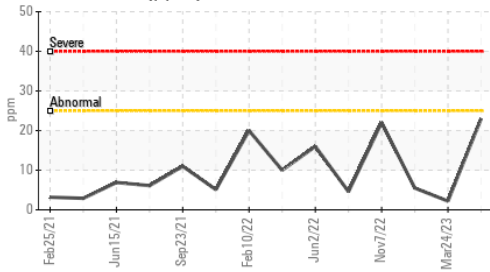
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.9	20.3	19.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	9.2	9.5	10.1

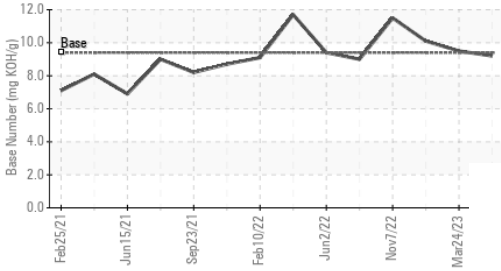


OIL ANALYSIS REPORT

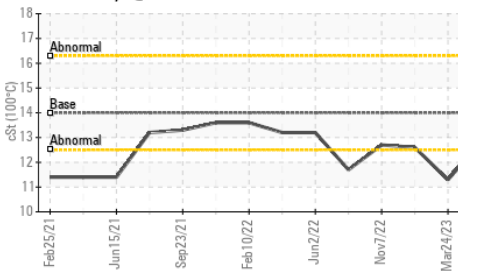
▲ Aluminum (ppm)



Base Number



Viscosity @ 100°C

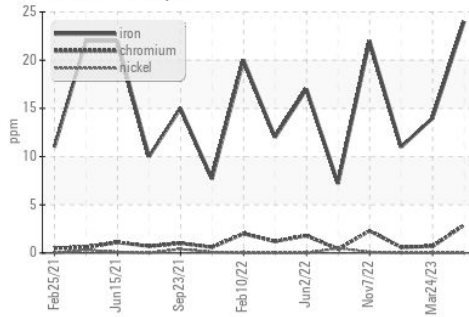


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

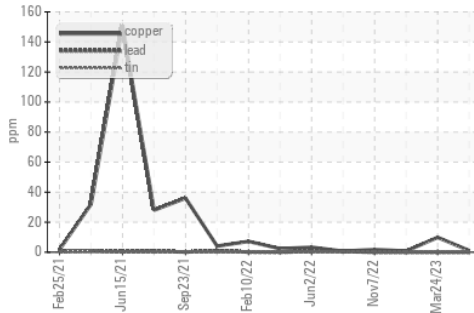
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	12.8	▲ 11.3	12.6

GRAPHS

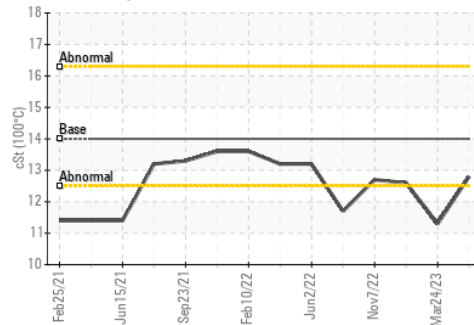
Ferrous Alloys



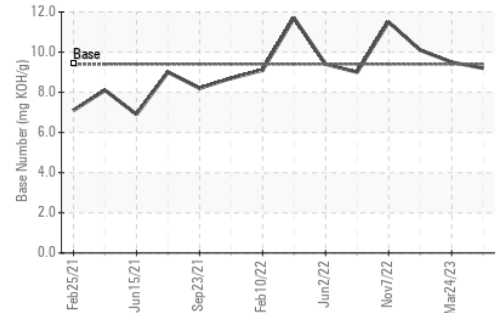
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0823146 **Received** : 30 Aug 2023
Lab Number : 05938599 **Diagnosed** : 31 Aug 2023
Unique Number : 10629211 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: TBN)

SHERWOOD CONSTRUCTION CO INC
 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: DOUG KING
 doug.king@sherwood.net
 T: (316)617-3161
 F: x:

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)