



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
OKLAHOMA/102/EG - EXCAVATOR
Machine Id
20.017L [OKLAHOMA^102^EG - EXCAVATOR]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0848941	WC0746315	WC0662324
Sample Date		Client Info		31 Aug 2023	23 Nov 2022	09 Feb 2022
Machine Age	hrs	Client Info		2516	2153	1769
Oil Age	hrs	Client Info		368	236	180
Filter Age	hrs	Client Info		368	236	180
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	7	0	8
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	<1	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	0	1
Tin	ppm	ASTM D5185m	>15	<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.

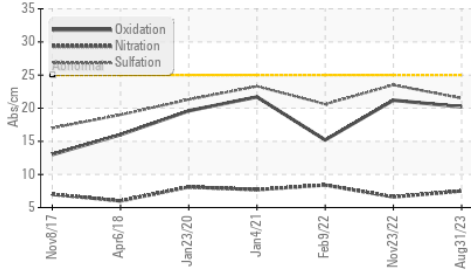
Silicon	ppm	ASTM D5185m	>25	4	3	4
Potassium	ppm	ASTM D5185m	>20	0	0	2
Fuel		WC Method	>5	<1.0	▲ 2.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.5	6.6	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	23.5	20.6
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

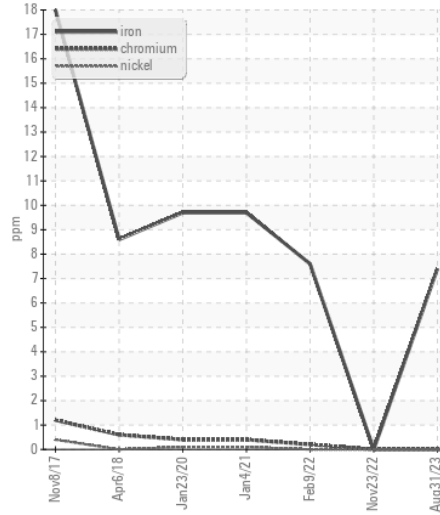
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	0	4
Boron	ppm	ASTM D5185m	0	50	65	83
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	43	40	8
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	0	539	492	675
Calcium	ppm	ASTM D5185m		1928	1715	1446
Phosphorus	ppm	ASTM D5185m		795	727	772
Zinc	ppm	ASTM D5185m		982	878	883
Sulfur	ppm	ASTM D5185m		3031	2916	2504
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	21.2	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	9.4	11.0	9.9
Visc @ 100°C	cSt	ASTM D445	14	12.9	● 12.2	13.9

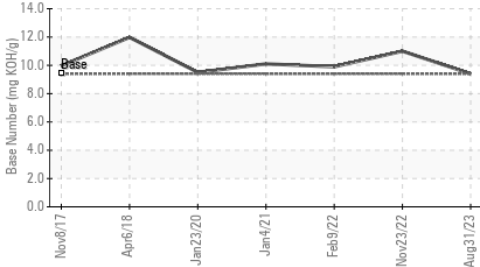
FT-IR (Direct Trend)



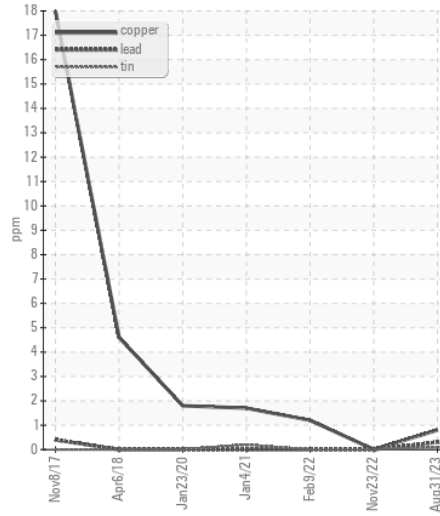
Ferrous Alloys



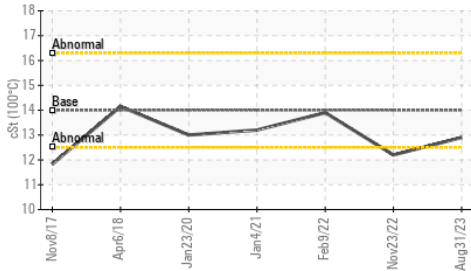
Base Number



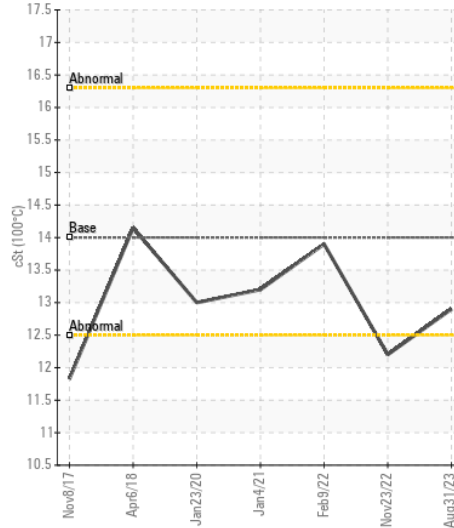
Non-ferrous Metals



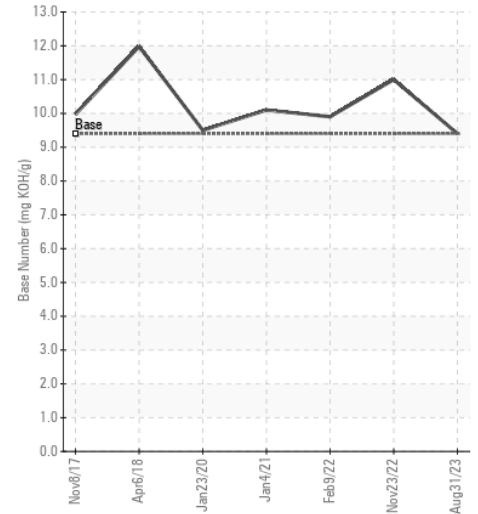
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0848941 **Received** : 08 Sep 2023
Lab Number : 05945436 **Tested** : 08 Sep 2023
Unique Number : 10636048 **Diagnosed** : 08 Sep 2023 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

SHERWOOD CONSTRUCTION CO INC
 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: SHAWN SOUTH
 shawn.south@sherwood.net

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)

T: x:

F: x: