

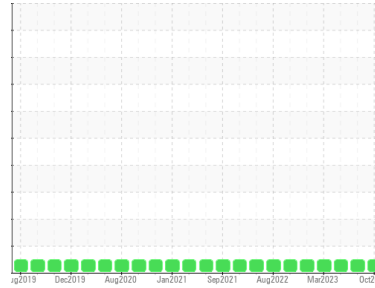


OIL ANALYSIS REPORT



Area
OKLAHOMA/102/EG - EXCAVATOR
 Machine Id
20.409L [OKLAHOMA^102^EG - EXCAVATOR]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- 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	WC0857265	WC0821886	WC0800892
Sample Date	Client Info	23 Oct 2023	24 Jul 2023	16 May 2023
Machine Age	hrs	5400	5119	4852
Oil Age	hrs	280	267	206
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
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	28	11	15
Chromium	ppm ASTM D5185m >20	<1	<1	1
Nickel	ppm ASTM D5185m >2	0	0	<1
Titanium	ppm ASTM D5185m >2	0	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >25	6	8	13
Lead	ppm ASTM D5185m >40	0	0	2
Copper	ppm ASTM D5185m >330	1	1	<1
Tin	ppm ASTM D5185m >15	0	0	<1
Vanadium	ppm ASTM D5185m	0	<1	<1
Cadmium	ppm ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	37	31	52
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 0	44	37	36
Manganese	ppm ASTM D5185m	0	<1	<1
Magnesium	ppm ASTM D5185m 0	512	484	557
Calcium	ppm ASTM D5185m	1748	1599	1734
Phosphorus	ppm ASTM D5185m	796	693	719
Zinc	ppm ASTM D5185m	956	832	932
Sulfur	ppm ASTM D5185m	2868	2751	2962

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	7	5	5
Sodium	ppm ASTM D5185m	<1	2	5
Potassium	ppm ASTM D5185m >20	3	2	6

INFRA-RED

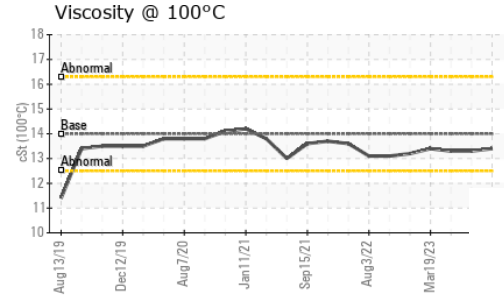
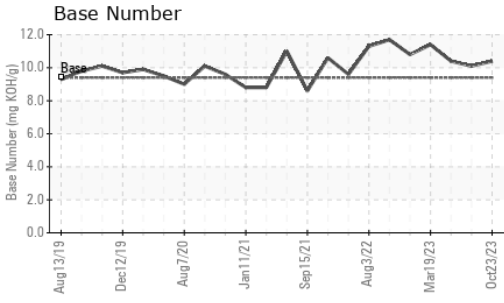
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.5	0.6
Nitration	Abs/cm *ASTM D7624 >20	7.5	7.0	7.5
Sulfation	Abs/.1mm *ASTM D7415 >30	22.3	22.2	21.4

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	20.6	19.6	18.0
Base Number (BN)	mg KOH/g ASTM D2896 9.4	10.4	10.1	10.4



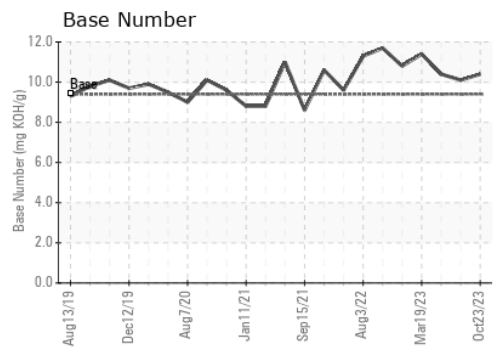
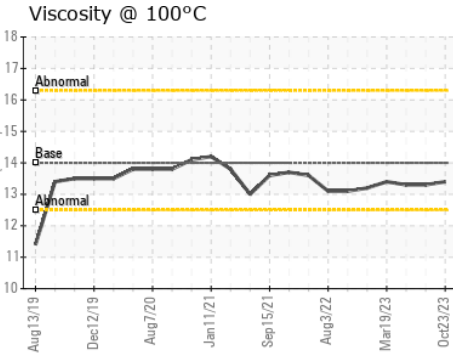
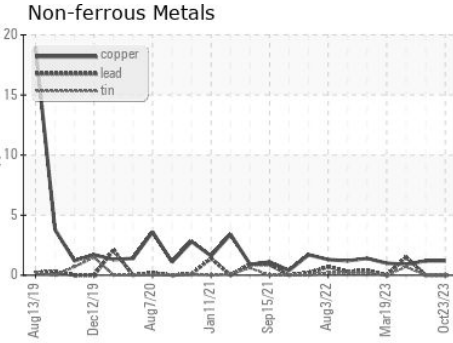
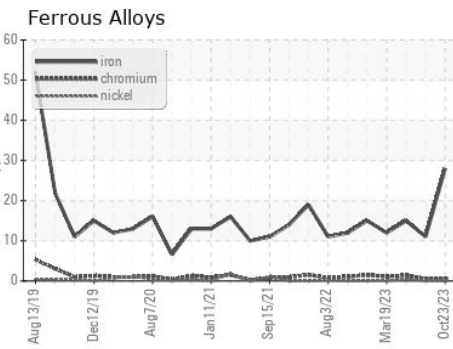
OIL ANALYSIS REPORT



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	13.4	13.3	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0857265 **Received** : 07 Nov 2023
Lab Number : **06000988** **Diagnosed** : 08 Nov 2023
Unique Number : 10729348 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: TBN)

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 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: DOUG KING
 doug.king@sherwood.net
 T: (316)617-3161
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Certificate L2367
 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)