

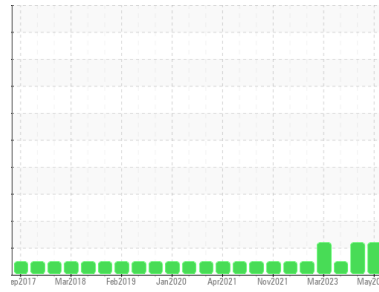


OIL ANALYSIS REPORT



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

Sample Rating Trend



GLYCOL



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels remain high. Test for glycol is negative.

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		WC0935223	WC0886987	WC0781257
Sample Date	Client Info		08 May 2024	10 Apr 2024	13 Jun 2023
Machine Age	hrs	Client Info	9245	9895	8798
Oil Age	hrs	Client Info	50	0	8347
Oil Changed	Client Info		Not Chngd	Changed	N/A
Sample Status			ATTENTION	ABNORMAL	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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	35	69	28
Chromium	ppm	ASTM D5185m >20	1	2	<1
Nickel	ppm	ASTM D5185m >2	0	<1	0
Titanium	ppm	ASTM D5185m >2	<1	1	0
Silver	ppm	ASTM D5185m >2	<1	<1	0
Aluminum	ppm	ASTM D5185m >25	7	13	7
Lead	ppm	ASTM D5185m >40	6	17	0
Copper	ppm	ASTM D5185m >330	15	31	2
Tin	ppm	ASTM D5185m >15	<1	1	<1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	27	17	33
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 0	61	97	42
Manganese	ppm	ASTM D5185m	<1	2	<1
Magnesium	ppm	ASTM D5185m 0	498	452	548
Calcium	ppm	ASTM D5185m	1641	1471	1830
Phosphorus	ppm	ASTM D5185m	863	752	975
Zinc	ppm	ASTM D5185m	943	878	1183
Sulfur	ppm	ASTM D5185m	2927	2629	3665

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	18	8
Sodium	ppm	ASTM D5185m	105	▲ 288	6
Potassium	ppm	ASTM D5185m >20	3	4	0
Glycol	%	*ASTM D2982	NEG	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.5	0.7	0.6
Nitration	Abs/cm	*ASTM D7624 >20	7.7	11.9	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.5	22.9	23.1

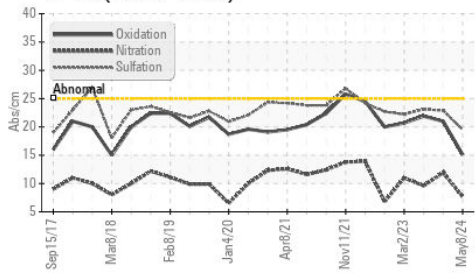
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.1	21.0	21.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	8.5	10.1	9.8

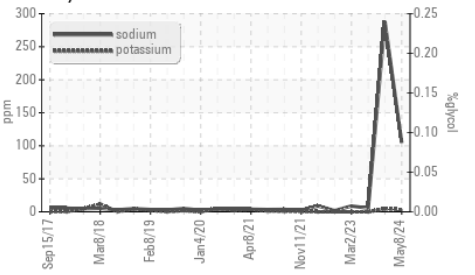


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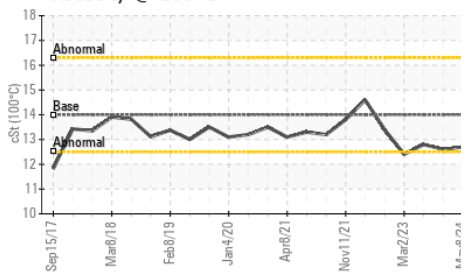
FT-IR (Direct Trend)



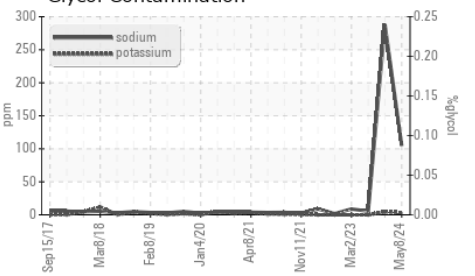
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

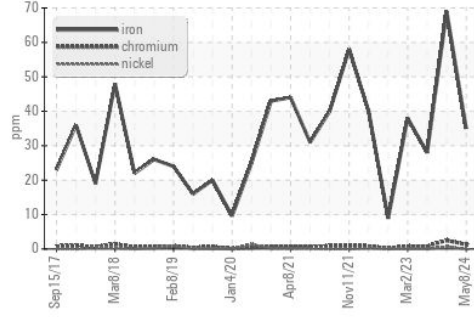


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

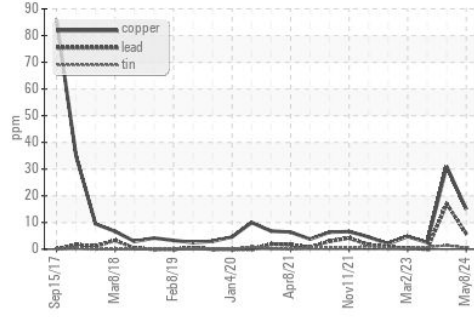
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	12.7	12.6	12.8

GRAPHS

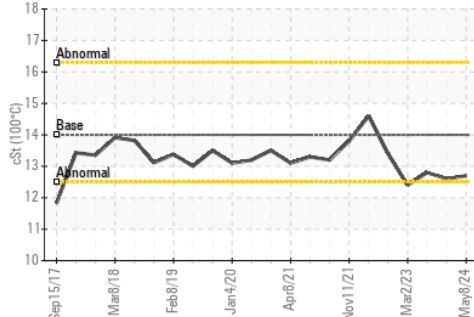
Ferrous Alloys



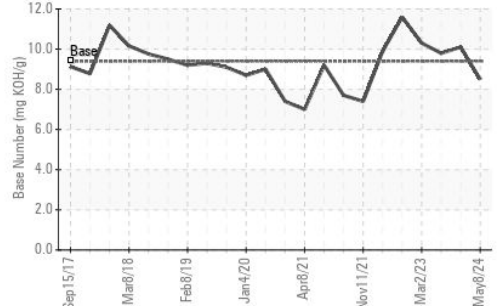
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0935223 **Received** : 20 May 2024
Lab Number : 06185447 **Tested** : 23 May 2024
Unique Number : 11036773 **Diagnosed** : 23 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

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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)