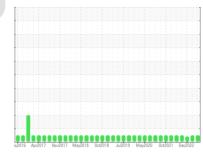


OIL ANALYSIS REPORT

OKLAHOMA/105/EG - TRUCK-ON-HWY-HEAVY DUTY 08.103 [OKLAHOMA^105^EG - TRUCK-ON-HWY-HEAVY DUTY]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

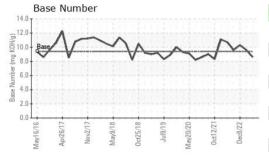
Fluid Condition

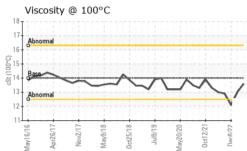
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0848946	WC0800752	WC0758801
Sample Date		Client Info		27 Sep 2023	25 May 2023	08 Dec 2022
Machine Age	hrs	Client Info		12822	12046	11506
Oil Age	hrs	Client Info		776	540	550
Oil Changed	0	Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	0.4
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21	8	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	12	<1	2
Lead	ppm	ASTM D5185m	>40	3	<1	1
Copper	ppm	ASTM D5185m	>330	1	<1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 35	history1	history2 40
	ppm					
Boron		ASTM D5185m	0	35	47	40
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	35 0	47 0	40
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	35 0 45	47 0 46	40 0 50
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	35 0 45 <1	47 0 46 <1	40 0 50 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	35 0 45 <1 528	47 0 46 <1 517	40 0 50 <1 524
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	35 0 45 <1 528 1700	47 0 46 <1 517 1831	40 0 50 <1 524 1644
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	35 0 45 <1 528 1700 792	47 0 46 <1 517 1831 824	40 0 50 <1 524 1644 905
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0	35 0 45 <1 528 1700 792 1006 2667 current	47 0 46 <1 517 1831 824 1017 3042 history1	40 0 50 <1 524 1644 905 1108 3061 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	35 0 45 <1 528 1700 792 1006 2667 current	47 0 46 <1 517 1831 824 1017 3042 history1	40 0 50 <1 524 1644 905 1108 3061 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	35 0 45 <1 528 1700 792 1006 2667 current 8 2	47 0 46 <1 517 1831 824 1017 3042 history1 5 0	40 0 50 <1 524 1644 905 1108 3061 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	35 0 45 <1 528 1700 792 1006 2667 current	47 0 46 <1 517 1831 824 1017 3042 history1	40 0 50 <1 524 1644 905 1108 3061 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	35 0 45 <1 528 1700 792 1006 2667 current 8 2	47 0 46 <1 517 1831 824 1017 3042 history1 5 0	40 0 50 <1 524 1644 905 1108 3061 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20	35 0 45 <1 528 1700 792 1006 2667 current 8 2 30	47 0 46 <1 517 1831 824 1017 3042 history1 5 0 2	40 0 50 <1 524 1644 905 1108 3061 history2 9 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	35 0 45 <1 528 1700 792 1006 2667 current 8 2 30	47 0 46 <1 517 1831 824 1017 3042 history1 5 0 2 history1	40 0 50 <1 524 1644 905 1108 3061 history2 9 3 0 history2 0.5 11.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	35 0 45 <1 528 1700 792 1006 2667 current 8 2 30 current 0.7	47 0 46 <1 517 1831 824 1017 3042 history1 5 0 2 history1 0.3	40 0 50 <1 524 1644 905 1108 3061 history2 9 3 0 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3 >20	35 0 45 <1 528 1700 792 1006 2667 current 8 2 30 current 0.7 11.8	47 0 46 <1 517 1831 824 1017 3042 history1 5 0 2 history1 0.3 9.7	40 0 50 <1 524 1644 905 1108 3061 history2 9 3 0 history2 0.5 11.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	35 0 45 <1 528 1700 792 1006 2667 current 8 2 30 current 0.7 11.8 24.6	47 0 46 <1 517 1831 824 1017 3042 history1 5 0 2 history1 0.3 9.7 23.6	40 0 50 <1 524 1644 905 1108 3061 history2 9 3 0 history2 0.5 11.6 26.2



OIL ANALYSIS REPORT

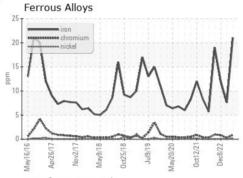


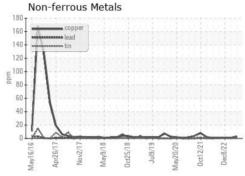


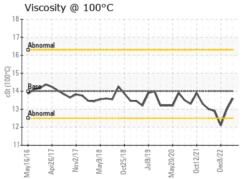
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

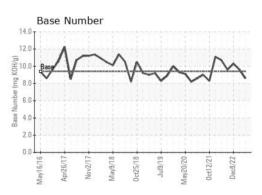
FLUID PROPERTIES		metnoa	ilmit/base	current	nistory i	nistory2	
Visc @ 100°C	cSt	ASTM D445	14	13.6	13.0	▲ 12.1	

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: WC0848946 : 05966039 : 10672590

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 02 Oct 2023

Diagnosed : 03 Oct 2023 Diagnostician : Don Baldridge

Test Package : CONST (Additional Tests: TBN)

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)

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