

OIL ANALYSIS REPORT







OKLAHOMA/102/EG - DOZER 35.98L [OKLAHOMA^102^EG - DOZER]

Main Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)





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

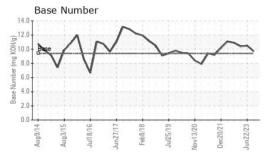
Fluid Condition

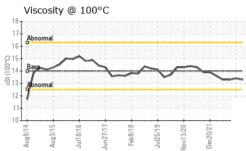
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0833975	WC0821699	WC0758647
Sample Date		Client Info		15 Aug 2023	22 Jun 2023	05 Feb 2023
Machine Age	hrs	Client Info		9593	9413	9150
Oil Age	hrs	Client Info		180	265	243
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	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	15	9	14
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	12	7	11
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<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 39	history1	history2 45
	ppm					
Boron		ASTM D5185m	0	39	48	45
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	39 0	48 0	45 0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	39 0 43	48 0 43	45 0 43
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	39 0 43 <1	48 0 43 <1 468 1709	45 0 43 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	39 0 43 <1 543 1769 781	48 0 43 <1 468	45 0 43 <1 548
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	39 0 43 <1 543 1769	48 0 43 <1 468 1709 745 878	45 0 43 <1 548 1798
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	39 0 43 <1 543 1769 781	48 0 43 <1 468 1709 745	45 0 43 <1 548 1798 780
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	39 0 43 <1 543 1769 781 937 3052 current	48 0 43 <1 468 1709 745 878 2460 history1	45 0 43 <1 548 1798 780 1002 3197 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	39 0 43 <1 543 1769 781 937 3052 current	48 0 43 <1 468 1709 745 878 2460 history1	45 0 43 <1 548 1798 780 1002 3197 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	39 0 43 <1 543 1769 781 937 3052 current 5 6	48 0 43 <1 468 1709 745 878 2460 history1 3 <1	45 0 43 <1 548 1798 780 1002 3197 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	39 0 43 <1 543 1769 781 937 3052 current	48 0 43 <1 468 1709 745 878 2460 history1	45 0 43 <1 548 1798 780 1002 3197 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 	39 0 43 <1 543 1769 781 937 3052 current 5 6	48 0 43 <1 468 1709 745 878 2460 history1 3 <1	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20	39 0 43 <1 543 1769 781 937 3052 current 5 6 0 current 0.3	48 0 43 <1 468 1709 745 878 2460 history1 3 <1	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	39 0 43 <1 543 1769 781 937 3052 current 5 6 0	48 0 43 <1 468 1709 745 878 2460 history1 3 <1 2	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1
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	39 0 43 <1 543 1769 781 937 3052 current 5 6 0 current 0.3	48 0 43 <1 468 1709 745 878 2460 history1 3 <1 2 history1 0.3	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1 history2 0.3
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 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	39 0 43 <1 543 1769 781 937 3052 current 5 6 0 current 0.3 7.4	48 0 43 <1 468 1709 745 878 2460 history1 3 <1 2 history1 0.3 7.3	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1 history2 0.3 7.0
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 D76145	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	39 0 43 <1 543 1769 781 937 3052 current 5 6 0 current 0.3 7.4 22.4	48 0 43 <1 468 1709 745 878 2460 history1 3 <1 2 history1 0.3 7.3 22.4	45 0 43 <1 548 1798 780 1002 3197 history2 4 5 <1 history2 0.3 7.0 21.7



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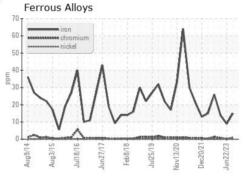


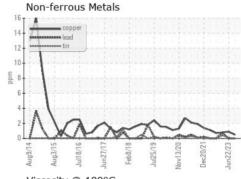


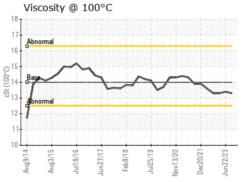
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

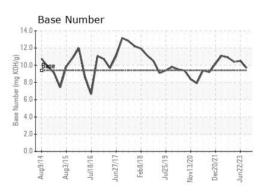
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.3	13.4	13.3

GRAPHS













Laboratory Sample No. Lab Number

Unique Number : 10622392

: 05937121

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0833975 Received : 29 Aug 2023 Diagnosed

: 29 Aug 2023 Diagnostician : Wes Davis

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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