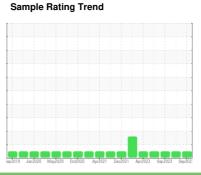


# **OIL ANALYSIS REPORT**

# OKLAHOMA/105/EG - TRUCK-ON-HWY-HEAVY DUTY 08.121 [OKLAHOMA^105^EG - TRUCK-ON-HWY-HEAVY DUTY]

**Diesel Engine** 

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)





# 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

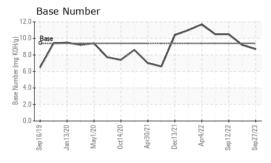
### **Fluid Condition**

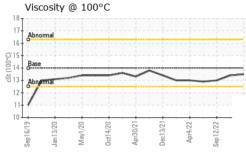
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	/ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0834055	WC0807921	WC0713216
Sample Date		Client Info		27 Sep 2023	25 May 2023	12 Sep 2022
Machine Age	hrs	Client Info		8896	8066	6514
Oil Age	hrs	Client Info		830	1552	589
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	9	11	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	3	4
Lead	ppm	ASTM D5185m	>40	0	1	0
Copper	ppm	ASTM D5185m	>330	<1	0	<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		limit/base			history2
		method		current	history1	
Boron	ppm	method ASTM D5185m	0	current 27	history1	34
Boron Barium	ppm	method ASTM D5185m ASTM D5185m	0	current 27 0	history1 34 0	34
Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0	current 27 0 44	history1  34  0 49 <1 603	34 2 42 <1 488
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 27 0 44 <1 526 1680	history1 34 0 49 <1	34 2 42 <1 488 1632
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 27 0 44 <1 526 1680 786	history1  34  0 49  <1 603 1895 888	34 2 42 <1 488 1632 751
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0	current  27  0  44  <1  526  1680  786  996	history1  34  0 49 <1 603 1895 888 1069	34 2 42 <1 488 1632 751 931
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0	current 27 0 44 <1 526 1680 786	history1  34  0  49  <1  603  1895  888  1069  3156	34 2 42 <1 488 1632 751 931 2396
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0	current  27  0  44  <1  526  1680  786  996  2721  current	history1  34  0 49 <1 603 1895 888 1069 3156 history1	34 2 42 <1 488 1632 751 931 2396 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0	current  27  0  44  <1  526  1680  786  996  2721  current  4	history1  34  0 49 <1 603 1895 888 1069 3156 history1 5	34 2 42 <1 488 1632 751 931 2396 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 limit/base	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1	history1  34  0 49 <1 603 1895 888 1069 3156 history1 5 4	34 2 42 <1 488 1632 751 931 2396 history2 4 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 limit/base	current  27  0  44  <1  526  1680  786  996  2721  current  4	history1  34  0 49 <1 603 1895 888 1069 3156 history1 5	34 2 42 <1 488 1632 751 931 2396 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	0 0 0 0 limit/base	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current	history1  34  0 49  <1 603 1895 888 1069 3156 history1  5 4 3	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2
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	method ASTM D5185m  method ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >6	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current  0.3	history1  34  0 49 <1 603 1895 888 1069 3156 history1  5 4 3 history1 0.4	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2 history2 0.2
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	method  ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >6	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current	history1  34  0 49  <1 603 1895 888 1069 3156 history1  5 4 3	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2 history2 0.2 9.0
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	method ASTM D5185m  method ASTM D5185m	0 0 0 0 0 limit/base >25 >20 limit/base >6	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current  0.3	history1  34  0 49 <1 603 1895 888 1069 3156 history1  5 4 3 history1 0.4	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2 history2 0.2
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	method  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 >6 >20	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current  0.3  9.5	history1  34  0 49  <1 603 1895 888 1069 3156 history1  5 4 3 history1 0.4 10.0	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2 history2 0.2 9.0
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	method  ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	0 0 0 0 0 limit/base >25 >20 limit/base >6 >20 >30	current  27  0  44  <1  526  1680  786  996  2721  current  4  <1  2  current  0.3  9.5  22.2	history1  34  0  49  <1 603 1895 888 1069 3156 history1  5  4 3 history1  0.4 10.0 22.7	34 2 42 <1 488 1632 751 931 2396 history2 4 <1 2 history2 0.2 9.0 24.0



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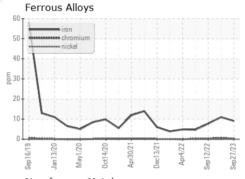


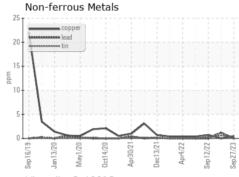


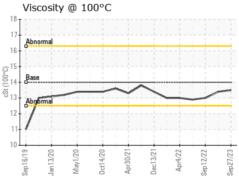
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

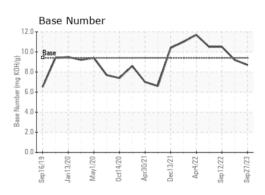
FLUID PROPERTIES		metnoa	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	14	13.5	13.4	13.0

## **GRAPHS**













Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10672592

: WC0834055 : 05966041

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

: 02 Oct 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. SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST WICHITA, KS US 67213 Contact: DOUG KING

doug.king@sherwood.net

T: (316)617-3161 F: x:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)