

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



OKLAHOMA/102/EG - OTHER SERVICE 54.104L [OKLAHOMA^102^EG - OTHER SERVICE]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS Recommendation

Resample at the next service interval to monitor.

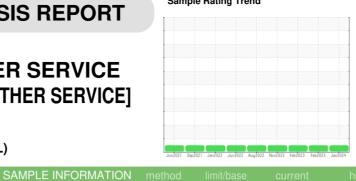
Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

Fluid Condition

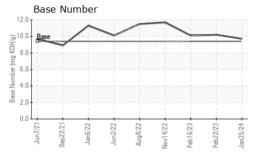
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

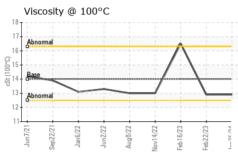


Sample Number Sample Date		Client Info		WC0857397 25 Jan 2024	WC0769639 22 Feb 2023	WC0758642 16 Feb 2023
Machine Age	hrs	Client Info		927	767	760
Oil Age	hrs	Client Info		126	107	90
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	7	9	75
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
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 60	history1 67	history2 10
	ppm ppm			60 <1		
Boron		ASTM D5185m	0	60	67 0 42	10
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	60 <1	67 0 42 <1	10 0 6
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	60 <1 38 <1 486	67 0 42 <1 524	10 0 6 1 44
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	60 <1 38 <1 486 1517	67 0 42 <1 524 1772	10 0 6 1 44 3255
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	60 <1 38 <1 486 1517 722	67 0 42 <1 524 1772 761	10 0 6 1 44 3255 1064
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	60 <1 38 <1 486 1517 722 839	67 0 42 <1 524 1772 761 922	10 0 6 1 44 3255 1064 1254
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	60 <1 38 <1 486 1517 722	67 0 42 <1 524 1772 761	10 0 6 1 44 3255 1064
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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	0 0 0	60 <1 38 <1 486 1517 722 839	67 0 42 <1 524 1772 761 922	10 0 6 1 44 3255 1064 1254
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 ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0	60 <1 38 <1 486 1517 722 839 2358	67 0 42 <1 524 1772 761 922 3095	10 0 6 1 44 3255 1064 1254 7715
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	60 <1 38 <1 486 1517 722 839 2358 current	67 0 42 <1 524 1772 761 922 3095 history1	10 0 6 1 44 3255 1064 1254 7715
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	60 <1 38 <1 486 1517 722 839 2358 current	67 0 42 <1 524 1772 761 922 3095 history1	10 0 6 1 44 3255 1064 1254 7715 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 limit/base >25	60 <1 38 <1 486 1517 722 839 2358 current 6 1	67 0 42 <1 524 1772 761 922 3095 history1 6 3	10 0 6 1 44 3255 1064 1254 7715 history2 6 0
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	60 <1 38 <1 486 1517 722 839 2358 current 6 1 <1	67 0 42 <1 524 1772 761 922 3095 history1 6 3 <1	10 0 6 1 44 3255 1064 1254 7715 history2 6 0 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base	60 <1 38 <1 486 1517 722 839 2358 current 6 1 <1 current	67 0 42 <1 524 1772 761 922 3095 history1 6 3 <1	10 0 6 1 44 3255 1064 1254 7715 history2 6 0 3
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	60 <1 38 <1 486 1517 722 839 2358 current 6 1 <1 current 0.1	67 0 42 <1 524 1772 761 922 3095 history1 6 3 <1 history1 0.1	10 0 6 1 44 3255 1064 1254 7715 history2 6 0 3 history2 0.1
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	0 0 0 0 limit/base >25 >20 limit/base >6 >20	60 <1 38 <1 486 1517 722 839 2358 current 6 1 <1 current 0.1 5.8	67 0 42 <1 524 1772 761 922 3095 history1 6 3 <1 history1 0.1 5.8	10 0 6 1 44 3255 1064 1254 7715 history2 6 0 3 history2 0.1 4.3
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 >6 >20 >30	60 <1 38 <1 486 1517 722 839 2358 current 6 1 <1 current 0.1 5.8 21.4	67 0 42 <1 524 1772 761 922 3095 history1 6 3 <1 history1 0.1 5.8 21.6	10 0 6 1 44 3255 1064 1254 7715 history2 6 0 3 history2 0.1 4.3 16.3



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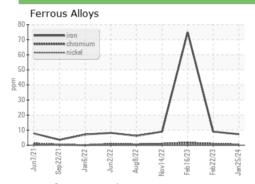


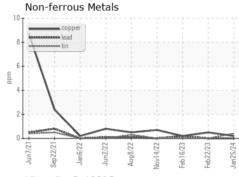


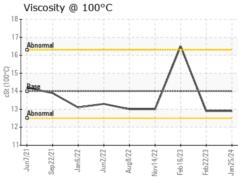
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

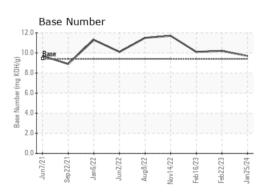
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	12.9	12.9	16.5

GRAPHS













Laboratory Sample No. Unique Number : 10858747

: WC0857397 Lab Number : 06076656

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed Test Package : CONST (Additional Tests: TBN)

: 01 Feb 2024 : 01 Feb 2024 - Wes Davis

:01 Feb 2024

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST

WICHITA, KS US 67213 Contact: DOUG KING

doug.king@sherwood.net T: (316)617-3161

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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