

OIL ANALYSIS REPORT

włacz Swytaz Novłazz Fedraz Awalacz Awalacz Oczłaz Juniczł Mułacz

Sample Rating Trend



39.63 [OKLAHOMA^3] Component Diesel Engine Fluid

Area OKLAHOMA/3

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
	Sample Number		Client Info		WC0874007	WC0873965	WC0886970
	Sample Date		Client Info		18 Mar 2024	24 Jan 2024	02 Jan 2024
	Machine Age	hrs	Client Info		5377	4901	4819
	Oil Age	hrs	Client Info		558	4819	4226
	Oil Changed		Client Info		Changed	N/A	Changed
;	Sample Status				NORMAL	NORMAL	NORMAL
	CONTAMINATION		method	limit/base	current	history1	history2
	Fuel		WC Method	>5	<1.0	<1.0	<1.0
Э	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	>100	22	3	17
	Chromium	ppm	ASTM D5185m	>20	1	<1	<1
	Nickel	ppm	ASTM D5185m	>2	<1	0	0
	Titanium	ppm	ASTM D5185m	>2	<1	<1	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>25	2	2	<1
	Lead	ppm	ASTM D5185m	>40	2	0	1
	Copper			>330	4	2	2
	Tin	ppm	ASTM D5185m	>15	1	0	<1
	Vanadium	ppm		>10	، <1		
	Cadmium	ppm	ASTM D5185m ASTM D5185m		<1 <1	0	0
		ppm		limit/booo			
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	32	53	26
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	0	41	39	39
	Manganese	ppm			. 4	0	<1
	-	ppiii	ASTM D5185m		<1	0	
	Magnesium	ppm	ASTM D5185m ASTM D5185m	0	<1 507	448	490
	-			0			
	Magnesium	ppm	ASTM D5185m	0	507	448	490
	Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	0	507 1734	448 1563	490 1725
	Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	507 1734 786	448 1563 771	490 1725 824
	Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 limit/base	507 1734 786 965	448 1563 771 830	490 1725 824 902 2545
	Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	507 1734 786 965 2661	448 1563 771 830 2647	490 1725 824 902
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	507 1734 786 965 2661 current	448 1563 771 830 2647 history1	490 1725 824 902 2545 history2
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	507 1734 786 965 2661 current 6	448 1563 771 830 2647 history1 4	490 1725 824 902 2545 history2 4
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	507 1734 786 965 2661 current 6 10	448 1563 771 830 2647 history1 4 0	490 1725 824 902 2545 history2 4 4
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	507 1734 786 965 2661 current 6 10 2	448 1563 771 830 2647 history1 4 0 1	490 1725 824 902 2545 history2 4 4 0
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	507 1734 786 965 2661 current 6 10 2 2 current	448 1563 771 830 2647 history1 4 0 1 1 history1 0.1	490 1725 824 902 2545 history2 4 4 4 0 history2 0.3
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm 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	limit/base >25 >20 limit/base >3 >20	507 1734 786 965 2661 <i>current</i> 6 10 2 <i>current</i> 0.3	448 1563 771 830 2647 history1 4 0 1 1 history1	490 1725 824 902 2545 history2 4 4 4 0 history2
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm \$% Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	507 1734 786 965 2661 <i>current</i> 6 10 2 <i>current</i> 0.3 9.4	448 1563 771 830 2647 history1 4 0 1 history1 0.1 6.2	490 1725 824 902 2545 history2 4 4 0 history2 0.3 8.5
	Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm \$% Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 >30	507 1734 786 965 2661 current 6 10 2 current 0.3 9.4 22.5	448 1563 771 830 2647 history1 4 0 1 history1 0.1 6.2 21.1	490 1725 824 902 2545 history2 4 4 4 0 history2 0.3 8.5 21.5

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

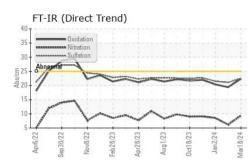
There is no indication of any contamination in the oil.

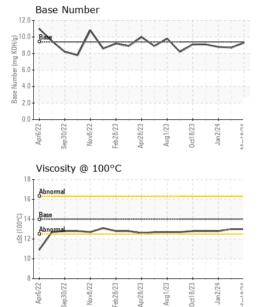
Fluid Condition

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



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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	13.0	13.0	12.8
GRAPHS						

Ferrous Alloys

Non-ferrous Metals

lead

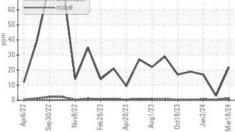
8

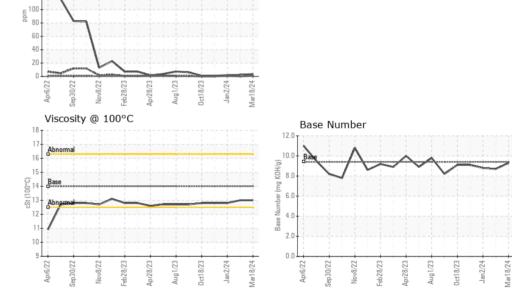
70

180

160

140 120





SHERWOOD CONSTRUCTION CO INC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0874007 Received : 05 Apr 2024 3219 WEST MAY ST Lab Number : 06139497 Tested : 05 Apr 2024 WICHITA, KS Unique Number : 10964305 Diagnosed : 05 Apr 2024 - Wes Davis US 67213 Test Package : CONST (Additional Tests: TBN) Contact: SHAWN SOUTH Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. shawn.south@sherwood.net * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

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Submitted By: GARRETT ADAMS

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