

OIL ANALYSIS REPORT

Area **OKLAHOMA/102/EG - OTHER SERVICE** 54.16L [OKLAHOMA^102^EG - OTHER SERVICE]

Diesel Engine

Fluid MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

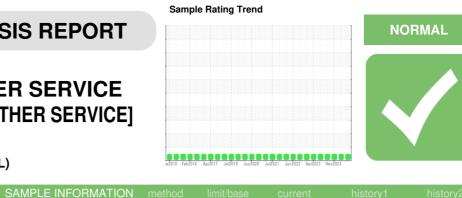
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

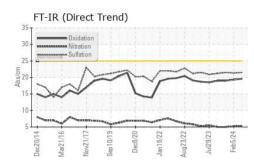
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

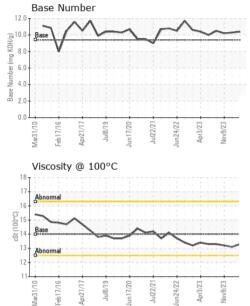


Sample Date Client Info 10 Apr 2024 05 Feb 2024 09 Nov 2023 Machine Age hrs Client Info 8818 8701 8544 Oil Age hrs Client Info 575 8243 8243 Oil Changed Client Info Changed N/A N/A Sample Status OI Imit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG WeAR METALS method Imit/base current history1 history2 for ppm ASTM 05185m >150 3 5 2 Chromium ppm ASTM 05185m >2 <1 0 0 Silver ppm ASTM 05185m >2 <1 0 0 Silver ppm ASTM 05185m >2 <1 0 0 Commium ppm ASTM	SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
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Oil Age Inrs Client Info 575 8243 8243 Oil Changed Client Info Changed N/A N/A Sample Status Imitibase Current Inistory1 NIStory2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Water WC Method >0.2 NEG NEG NEG Water WC Method >0.2 NEG NEG NEG Water WC Method >0.2 1 <1 <1 Nickel ppm ASTM D5185m<>2 <1 0 0 Nickel ppm ASTM D5185m<>2 <1 0 0 Aluminum ppm ASTM D5185m<>40 <1 0 0 Aluminum ppm ASTM D5185m<>15 <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 Cadmium <td< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>10 Apr 2024</th><th>05 Feb 2024</th><th>09 Nov 2023</th></td<>	Sample Date		Client Info		10 Apr 2024	05 Feb 2024	09 Nov 2023
Oil Changed Client Info Changed N/A N/A Sample Status Image: Contramine Status Image: Contramine Status NORMAL NORMAL	Machine Age	hrs	Client Info		8818	8701	8544
Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Age	hrs	Client Info		575	8243	8243
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		Changed	N/A	N/A
Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Sample Status				NORMAL	NORMAL	NORMAL
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Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 0 468 482 544 Calcium ppm ASTM D5185m 0 468 482 544 Calcium ppm ASTM D5185m 1559 1549 1730 Phosphorus ppm ASTM D5185m 769 775 674 Zinc ppm ASTM D5185m 875 877 930 Sulfur ppm ASTM D5185m 2729 2530 2662 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >20 2 0 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>0</th> <td>0</td> <td>0</td>	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 0 468 482 544 Calcium ppm ASTM D5185m 1559 1549 1730 Phosphorus ppm ASTM D5185m 769 775 674 Zinc ppm ASTM D5185m 875 877 930 Sulfur ppm ASTM D5185m 2729 2530 2662 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >20 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5	Molybdenum	ppm	ASTM D5185m	0	39	41	41
Calcium ppm ASTM D5185m 1559 1549 1730 Phosphorus ppm ASTM D5185m 769 775 674 Zinc ppm ASTM D5185m 875 877 930 Sulfur ppm ASTM D5185m 2729 2530 2662 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >20 2 0 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7414 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 769 775 674 Zinc ppm ASTM D5185m 875 877 930 Sulfur ppm ASTM D5185m 2729 2530 2662 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>468</th><td>482</td><td>544</td></t<>	Magnesium	ppm	ASTM D5185m	0	468	482	544
Zinc ppm ASTM D5185m 875 877 930 Sulfur ppm ASTM D5185m 2729 2530 2662 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >25 9 9 8 Sodium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.tmm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1	Calcium	ppm	ASTM D5185m		1559	1549	1730
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CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>25998SodiumppmASTM D5185m>20220INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.10.10NitrationAbs/cm*ASTM D7624>205.25.25.0SulfationAbs/limi*ASTM D7415>3021.521.321.5FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.imm*ASTM D7414>2519.619.319.0	Zinc	ppm	ASTM D5185m		875	877	930
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Sodium ppm ASTM D5185m <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 2 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0	Silicon	ppm	ASTM D5185m	>25	9	9	8
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.tmm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tmm *ASTM D7414 >25 19.6 19.3 19.0	Sodium	ppm	ASTM D5185m		<1	1	3
Soot % % *ASTM D7844 >3 0.1 0.1 0 Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0	Potassium	ppm	ASTM D5185m	>20	2	2	0
Nitration Abs/cm *ASTM D7624 >20 5.2 5.2 5.0 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0	Soot %	%	*ASTM D7844	>3	0.1	0.1	0
Sulfation Abs/.1mm *ASTM D7415 >30 21.5 21.3 21.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0	Nitration	Abs/cm	*ASTM D7624	>20	5.2	5.2	5.0
Oxidation Abs/.1mm *ASTM D7414 >25 19.6 19.3 19.0							
	FLUID DEGRADA		method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6	19.3	19.0
	Base Number (BN)	mg KOH/g	ASTM D2896		10.4	10.3	10.2



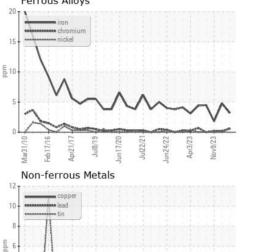
OIL ANALYSIS REPORT

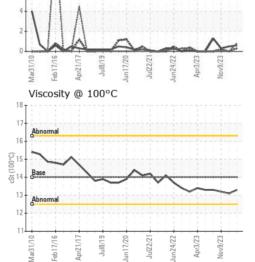


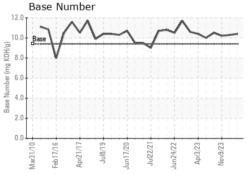


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	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	13.3	13.1	13.2
GRAPHS						

Ferrous Alloys







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SHERWOOD CONSTRUCTION CO INC Sample No. : WC0864391 Received : 22 Apr 2024 3219 WEST MAY ST Lab Number : 06156664 Tested : 23 Apr 2024 WICHITA, KS Unique Number : 10992087 Diagnosed : 23 Apr 2024 - Wes Davis US 67213 Test Package : CONST (Additional Tests: TBN) Contact: DOUG KING Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. doug.king@sherwood.net * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (316)617-3161 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Report Id: SHEWIC [WUSCAR] 06156664 (Generated: 04/23/2024 18:05:15) Rev: 1

Submitted By: SHAWN SOUTH

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