

OIL ANALYSIS REPORT

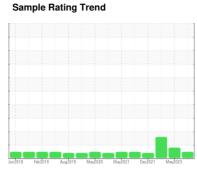




OKLAHOMA/102/EG - DOZER 35.102L [OKLAHOMA^102^EG - DOZER]

Hydraulic System

MOBIL MOBILTRANS AST 30 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

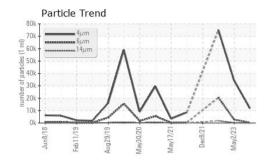
Fluid Condition

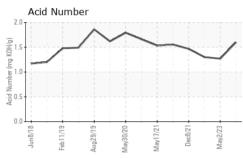
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

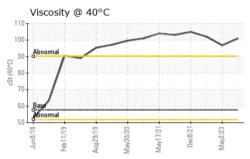
Sample Date Client Info 24 May 2024 02 May 2023 04 Jun 2022	AST 30 (GAL)		Jun2018 Fe	b2019 Aug2019 May	2020 May2021 Dec2021 I	May2023	
Sample Date Client Info 24 May 2024 02 May 2023 04 Jun 2022	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info Dil Changed Chang	Sample Number		Client Info		WC0935283	WC0792509	WC0686919
Dil Age	Sample Date		Client Info		24 May 2024	02 May 2023	04 Jun 2022
Client Info	Machine Age	hrs	Client Info		8490	7406	6572
CONTAMINATION method limit/base current history1 history2	Oil Age	hrs	Client Info		1084	500	800
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >20 5 6 4 Chromium ppm ASTM D5185m >10 0 0 0 Olickel ppm ASTM D5185m >10 0 0 0 Alluminum ppm ASTM D5185m >10 0 0 <1	Oil Changed		Client Info		Not Changd	Changed	Changed
Water WC Method >0.1 NEG NEG NEG VWEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >20 5 6 4 Chromium ppm ASTM D5185m >10 0 -1 0 Vickel ppm ASTM D5185m >10 0 0 0 Silver ppm ASTM D5185m 0 0 -1 -1 Aluminum ppm ASTM D5185m >10 0 0 -1 Acad ppm ASTM D5185m >10 0 0 -1 Lead ppm ASTM D5185m >10 -1 -1 -1 -1 Acting ppm ASTM D5185m >10 -1 -1 -1 -1 -1 Acting ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 38	Sample Status				NORMAL	ATTENTION	ABNORMAL
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >20 5 6 4 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m >10 0 0 0 Silver ppm ASTM D5185m 0 0 <1 <1 Aluminum ppm ASTM D5185m >10 3 6 2 Aluminum ppm ASTM D5185m >10 0 0 <1 Lead ppm ASTM D5185m >10 <1 <1 <1 Fin ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CONTAMINATION	J	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >20 5 6 4	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >10 0 <1 0 Nickel ppm ASTM D5185m >10 0 0 0 Citianium ppm ASTM D5185m >10 0 0 <1 Aluminum ppm ASTM D5185m >10 3 6 2 Lead ppm ASTM D5185m >10 0 0 <1 Lead ppm ASTM D5185m >10 0 0 <1 Lead ppm ASTM D5185m >10 <1 <1 <1 Cead ppm ASTM D5185m >10 <1 <1 <1 Candium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 38 29 29 Boron ppm ASTM D5185m <1 0 0 <	WEAR METALS		method	limit/base	current	history1	history2
ASTM D5185m >10	ron	ppm	ASTM D5185m	>20	5	6	4
ASTM D5185m STM D5185m S	Chromium		ASTM D5185m	>10		<1	0
ASTM D5185m Compared to the particles > 1	Nickel		ASTM D5185m	>10	0	0	0
Silver	Titanium		ASTM D5185m		<1	<1	<1
Aluminum ppm ASTM D5185m >10	Silver		ASTM D5185m		0	0	<1
Lead ppm ASTM D5185m >10 0 0 <1 Copper ppm ASTM D5185m >75 1 <1	Aluminum		ASTM D5185m	>10	3	6	2
Copper ppm ASTM D5185m >75 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 0 Antimory ppm ASTM D5185m >10 <1 <1 0 0 Antimony ASTM D5185m O 0	_ead		ASTM D5185m	>10	0	0	<1
Antimony ppm ASTM D5185m >10 <1 <1 0 0	Copper		ASTM D5185m	>75	1	<1	<1
Antimony	Γin	ppm	ASTM D5185m	>10	<1	<1	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 38 29 29 Barium ppm ASTM D5185m <1 0 0 Molybdenum ppm ASTM D5185m 3 10 1 Manganese ppm ASTM D5185m 56 137 21 Manganesium ppm ASTM D5185m 3027 2788 3096 Phosphorus ppm ASTM D5185m 1057 902 939 Zinc ppm ASTM D5185m 1203 1167 1187 Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 10 11 8 Sodium ppm ASTM D5185m 20	Antimony		ASTM D5185m				
ADDITIVES	/anadium	ppm	ASTM D5185m		0	0	0
Soron ppm ASTM D5185m 38 29 29 29 29 29 29 29 2	Cadmium	ppm	ASTM D5185m		0	0	0
Sarium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 3 10 1 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		38	29	29
Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 56 137 21 Calcium ppm ASTM D5185m 3027 2788 3096 Phosphorus ppm ASTM D5185m 1057 902 939 Zinc ppm ASTM D5185m 1203 1167 1187 Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Goldium ppm ASTM D5185m >20 10 11 8 Goldium ppm ASTM D5185m >20 10 11 8 Goldium ppm ASTM D5185m >20 <1	Barium	ppm	ASTM D5185m		<1	0	0
Magnesium ppm ASTM D5185m 56 137 21 Calcium ppm ASTM D5185m 3027 2788 3096 Phosphorus ppm ASTM D5185m 1057 902 939 Zinc ppm ASTM D5185m 1203 1167 1187 Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Solium ppm ASTM D5185m >20 10 11 8 Sodium ppm ASTM D5185m >20 <1 0 0 Potassium ppm ASTM D5185m >20 <1 0 0 Particles >4µm ASTM D7647 >20 <1 0 0 0 Particles >6µm ASTM D7647 >2500 194 2681 A 20491 Particles >21µm ASTM D7647 >640 6 86 A 1729 Particles >71µm <th>Molybdenum</th> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>3</th> <td>10</td> <td>1</td>	Molybdenum	ppm	ASTM D5185m		3	10	1
Calcium ppm ASTM D5185m 3027 2788 3096 Phosphorus ppm ASTM D5185m 1057 902 939 Zinc ppm ASTM D5185m 1203 1167 1187 Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 10 11 8 Sodium ppm ASTM D5185m 2 2 2 2 Potassium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 1057 902 939 Zinc ppm ASTM D5185m 1203 1167 1187 Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 10 11 8 Sodium ppm ASTM D5185m 2 2 2 2 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m		56	137	21
2	Calcium	ppm	ASTM D5185m		3027	2788	3096
Sulfur ppm ASTM D5185m 4987 4213 4097 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m ≥20 10 11 8 Sodium ppm ASTM D5185m ≥2 2 2 2 Potassium ppm ASTM D5185m ≥20 <1 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 ≥2500 194 ≥681 △ 20491 Particles >6μm ASTM D7647 >640 6 86 △ 1729 Particles >21μm ASTM D7647 >160 2 11 △ 295 Particles >71μm ASTM D7647 >40 0 0 7	Phosphorus	ppm	ASTM D5185m		1057	902	939
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 10 11 8 Sodium ppm ASTM D5185m 2 2 2 2 Potassium ppm ASTM D5185m >20 <1 0 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 11826 34131 74990 Particles >6μm ASTM D7647 >2500 194 2681 Δ 20491 Particles >14μm ASTM D7647 >640 6 86 Δ 1729 Particles >21μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	Zinc	ppm	ASTM D5185m		1203	1167	1187
Soliticon ppm ASTM D5185m >20 10 11 8 Solition ppm ASTM D5185m 2 2 2 2 2 2 2 2 2	Sulfur	ppm	ASTM D5185m		4987	4213	4097
Sodium ppm ASTM D5185m 2 1 3 2 2 2 1 3 2 2 1 3 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1	Silicon	ppm	ASTM D5185m	>20	10	11	8
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 11826 34131 74990 Particles >6μm ASTM D7647 >2500 194 2681 Δ 20491 Particles >14μm ASTM D7647 >640 6 86 Δ 1729 Particles >21μm ASTM D7647 >160 2 11 Δ 295 Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	Sodium	ppm	ASTM D5185m		2	2	2
Particles >4μm ASTM D7647 11826 34131 74990 Particles >6μm ASTM D7647 >2500 194 2681 20491 Particles >14μm ASTM D7647 >640 6 86 1729 Particles >21μm ASTM D7647 >160 2 11 295 Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0	Potassium		ASTM D5185m	>20	<1	0	0
Particles >6μm ASTM D7647 >2500 194 2681 △ 20491 Particles >14μm ASTM D7647 >640 6 86 △ 1729 Particles >21μm ASTM D7647 >160 2 11 △ 295 Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >640 6 86 Δ 1729 Particles >21μm ASTM D7647 >160 2 11 Δ 295 Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	Particles >4µm		ASTM D7647		11826	34131	74990
Particles >21μm ASTM D7647 >160 2 11 Δ 295 Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	Particles >6µm		ASTM D7647	>2500	194	2681	<u>^</u> 20491
Particles >38μm ASTM D7647 >40 0 0 7 Particles >71μm ASTM D7647 >10 0 0 0	Particles >14μm		ASTM D7647	>640	6	86	<u>▲</u> 1729
Particles >71μm ASTM D7647 >10 0 0	Particles >21µm		ASTM D7647	>160	2	11	△ 295
				4.0		_	=
Dil Cleanliness ISO 4406 (c) >/18/16 21/15/10 ● 22/19/14 ▲ 23/22/18	Particles >38μm		ASTM D7647	>40	0	0	/
	Particles >38µm Particles >71µm						

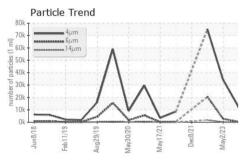


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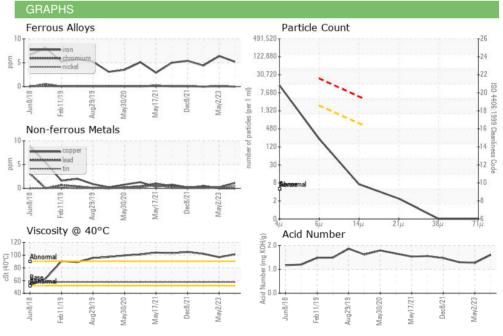








FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		1.60	1.27	1.30
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.6	101	96.8	102
SAMPLE IMAGES		method	limit/base	current	history1	history2







Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0935283 Lab Number : 06200073 Unique Number : 11062196

Color

Bottom

Received : 05 Jun 2024 **Tested** : 06 Jun 2024

Diagnosed : 06 Jun 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST

WICHITA, KS US 67213

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

Test Package : CONST Certificate 12367 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)

Report Id: SHEWIC [WUSCAR] 06200073 (Generated: 06/07/2024 08:21:14) Rev: 1

Submitted By: RUSTY RILEY

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