

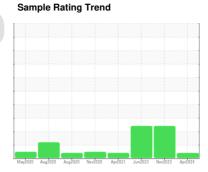
OIL ANALYSIS REPORT



KANSAS/44/EG - DOZER 36.21L [KANSAS^44^EG - DOZER]

Hydraulic System

MOBIL MOBILTRANS AST 30 (--- GAL)





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

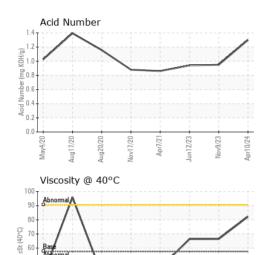
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0864329	WC0819893	WC0746864
Sample Date		Client Info		10 Apr 2024	09 Nov 2023	12 Jun 2023
Machine Age	hrs	Client Info		8486	7633	7278
Oil Age	hrs	Client Info		4637	3849	3225
Oil Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	14	27	23
Chromium	ppm	ASTM D5185m	>10	<1	2	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	7	1 2	1 0
Lead	ppm	ASTM D5185m	>10	1	2	2
Copper	ppm	ASTM D5185m	>75	6	12	11
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 20	history1 15	history2 13
	ppm ppm		limit/base			
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	limit/base	20	15	13
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	20 0	15 0	13
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	20 0 0	15 0 <1 <1 13	13 0 <1
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	20 0 0 <1	15 0 <1 <1	13 0 <1 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	20 0 0 <1 14	15 0 <1 <1 13	13 0 <1 <1 11
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	20 0 0 <1 14 2358	15 0 <1 <1 13 1850 964 1140	13 0 <1 <1 11 1825
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	20 0 0 <1 14 2358 875	15 0 <1 <1 13 1850 964	13 0 <1 <1 11 1825 871
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	20 0 0 <1 14 2358 875 1096 4598	15 0 <1 <1 13 1850 964 1140 3087 history1	13 0 <1 <1 11 1825 871 1089 3746 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m		20 0 0 <1 14 2358 875 1096 4598	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31	13 0 <1 <1 11 1825 871 1089 3746
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20	20 0 0 <1 14 2358 875 1096 4598	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	limit/base >20	20 0 0 <1 14 2358 875 1096 4598 current	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20	20 0 0 <1 14 2358 875 1096 4598 current 18 1	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >20	20 0 0 <1 14 2358 875 1096 4598 current 18 1	15 0 <1 <1 13 1850 964 1140 3087 history1 31 2 5	13 0 <1 <1 11 1825 871 1089 3746 history2 26 0 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >20 limit/base	20 0 0 <1 14 2358 875 1096 4598 current 18 1	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2 5	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	limit/base >20 >20 limit/base	20 0 0 <1 14 2358 875 1096 4598 current 18 1 1	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2 5 history1 25696 461 11	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0 5 history2 13680
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	limit/base >20 >20 limit/base >2500 >40	20 0 0 <1 14 2358 875 1096 4598 current 18 1 1	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2 5 history1 25696 461	13 0 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0 5 history2 13680 874
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >2500 >40	20 0 0 <1 14 2358 875 1096 4598 current 18 1 1	15 0 <1 <1 13 1850 964 1140 3087 history1 ▲ 31 2 5 history1 25696 461 11	13 0 <1 <1 <1 11 1825 871 1089 3746 history2 13680 874 59
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >2500 >640 >160 >40	20 0 0 <1 14 2358 875 1096 4598 current 18 1 1 current	15 0 <1 <1 13 1850 964 1140 3087 history1 △ 31 2 5 history1 25696 461 11 3	13 0 <1 <1 <1 11 1825 871 1089 3746 history2 ▲ 26 0 5 history2 13680 874 59 16



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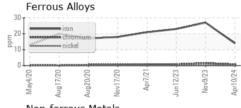
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		1.30	0.95	0.94
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	MODER	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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.6	82.2	66.4	66.3
SAMPLE IMAGES		method	limit/base	current	history1	history2

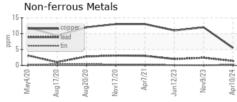
Color

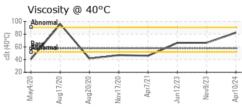


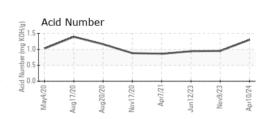


GRAPHS













Certificate 12367

Laboratory

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Lab Number : 06155838

: WC0864329 Unique Number : 10991261 Test Package : CONST

Received : 22 Apr 2024 **Tested** : 24 Apr 2024 Diagnosed

: 24 Apr 2024 - Don Baldridge

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:

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)