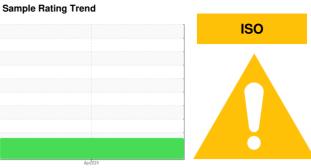


OIL ANALYSIS REPORT



Machine Id **TOTE 97**

New (Unused) Oil

{not provided} (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

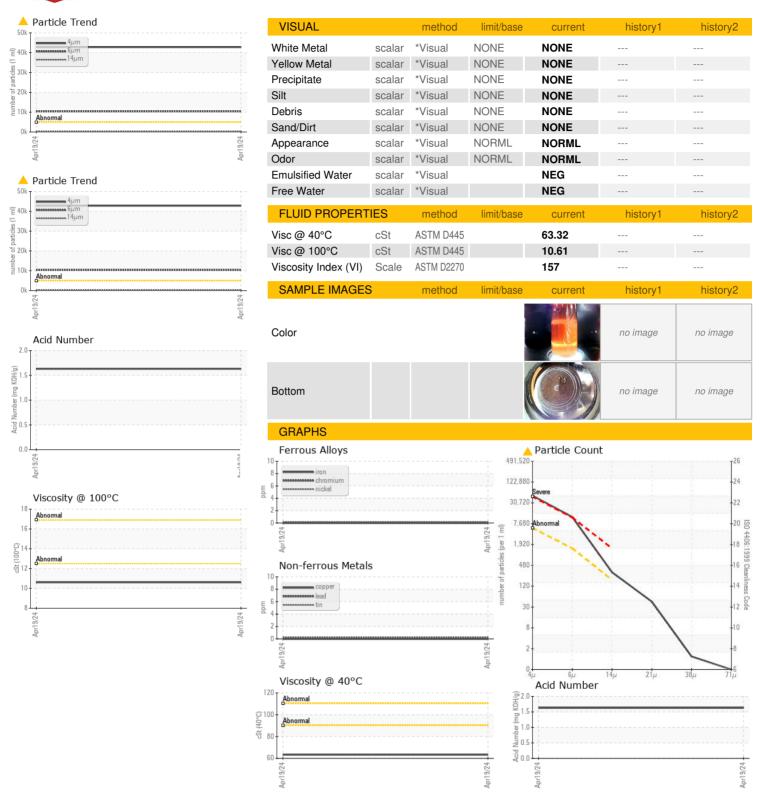
Contamination

There is a high amount of particulates present in the oil.

Sample Number Client Info TLC0001649 Sample Date Client Info 19 Apr 2024 Machine Age hrs Client Info 0 Oil Age hrs Client Info 0 Oil Age hrs Client Info 0 Oil Changed Client Info N/A Sample Status							
Sample Date Client Info 19 Apr 2024	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 .	Sample Number		Client Info		TLC0001649		
Oil Age hrs Client Info N/A	Sample Date		Client Info		19 Apr 2024		
Cili Changed Sample Status	Machine Age	hrs	Client Info		0		
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >5 0 Chromium ppm ASTM D5185m >5 0 Nickel ppm ASTM D5185m >5 <1	Oil Age	hrs	Client Info		0		
WEAR METALS method limit/base current history1 histor Iron ppm ASTM D5185m >5 0 Chromium ppm ASTM D5185m >5 0 Nickel ppm ASTM D5185m >5 <1	Oil Changed		Client Info				
Iron	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >5 0 Nickel ppm ASTM D5185m >5 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 <1	Iron	ppm	ASTM D5185m	>5	0		
Description	Chromium	ppm	ASTM D5185m	>5	0		
Silver	Nickel	ppm	ASTM D5185m	>5	<1		
Aluminum ppm ASTM D5185m >5 1 Lead ppm ASTM D5185m >5 0 Copper ppm ASTM D5185m >5 0 Tin ppm ASTM D5185m >5 0 Vanadium ppm ASTM D5185m >5 <1 Vanadium ppm ASTM D5185m >5 <1 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history1 ADDITIVES method limit/base current history1 history1 ASTM D5185m 98 ADDITIVES method limit/base current history1 history1 Manganese ppm ASTM D5185m 28 Manganese ppm ASTM D5185m 28 Manganesium ppm ASTM D5185m 177 Calcium ppm ASTM D5185m 1089 Calcium ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m 0 CONTAMINANTS method limit/base current history1 history1 Potassium ppm ASTM D5185m 0 CONTAMINANTS method limit/base current history1 history1 Particles >4µm ASTM D7647 >100 1 Particles >50µm ASTM D7647 >100 1 Particles >71µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >10 1	Titanium	ppm	ASTM D5185m		0		
Lead ppm ASTM D5185m >5 0 Copper ppm ASTM D5185m >5 0 Tin ppm ASTM D5185m >5 <1	Silver	ppm	ASTM D5185m	>5	0		
Copper ppm ASTM D5185m >5 0 Vanadium ppm ASTM D5185m >5 <1	Aluminum	ppm	ASTM D5185m	>5	1		
Copper ppm ASTM D5185m >5 0 Tin ppm ASTM D5185m >5 <1	Lead	ppm	ASTM D5185m	>5	0		
Tin ppm ASTM D5185m >5 <1	Copper	ppm	ASTM D5185m	>5	0		
Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 98 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 1089 Calcium ppm ASTM D5185m 1089 Phosphorus ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m 0 <td>• •</td> <td></td> <td></td> <td></td> <td><1</td> <td></td> <td></td>	• •				<1		
ADDITIVES method limit/base current history1 history1	Vanadium		ASTM D5185m		0		
Boron ppm ASTM D5185m 98	Cadmium				<1		
Barium ppm ASTM D5185m 28	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum	Boron	ppm	ASTM D5185m		98		
Manganese ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 177 Phosphorus ppm ASTM D5185m 1089 Phosphorus ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >20 3 Water	Barium	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 177 Calcium ppm ASTM D5185m 1089 Phosphorus ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m >0 Potassium ppm ASTM D5185m >20 3 Water % ASTM D5185m >20 3 Particles >4µm ASTM D5185m >20 3 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm <	Molybdenum	ppm	ASTM D5185m		28		
Calcium ppm ASTM D5185m 1089 Phosphorus ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m >20 3 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >50000 42787 Particles >14μm ASTM D7647 >1300 10387 Particles >21μ	Manganese	ppm	ASTM D5185m		0		
Phosphorus ppm ASTM D5185m 594 Zinc ppm ASTM D5185m 668 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 3 Water % ASTM D5185m >20 3 Water % ASTM D5185m >20 3 FLUID CLEANLINESS method limit/base neg FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 >1300 42787 P	Magnesium	ppm	ASTM D5185m		177		
Zinc ppm ASTM D5185m 2602 Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >5000 42787 Particles >6μm ASTM D7647 >1300 10387 Particles >14μm ASTM D7647 >160 2666 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 histor	Calcium	ppm	ASTM D5185m		1089		
Sulfur ppm ASTM D5185m 2602 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 3 Water % ASTM D5185m >20 3 Water % ASTM D5185m >0 Water % ASTM D5185m >0 Water % ASTM D5185m >0 Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 >100 42787 Particles	Phosphorus	ppm	ASTM D5185m		594		
CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 >5000 ▲ 42787 Particles >6µm ASTM D7647 >1300 ▲ 10387 Particles >14µm ASTM D7647 >160 ▲ 266 Particles >21µm ASTM D7647 >40 38 Particles >38µm ASTM D7647 >10 1 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Zinc	ppm	ASTM D5185m		668		
Silicon ppm ASTM D5185m >15 8 Sodium ppm ASTM D5185m 0 Sodium ppm ASTM D5185m 0 Sodium ppm ASTM D5185m >20 3 Sodium ppm ASTM D5185m >20 3 Sodium ppm ASTM D6304 NEG Sodium ppm ASTM D6304 NEG Sodium Sodium ppm ASTM D6304 NEG Sodium	Sulfur	ppm	ASTM D5185m		2602		
Sodium ppm ASTM D5185m 0	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >5000 42787 Particles >6μm ASTM D7647 >1300 10387 Particles >14μm ASTM D7647 >160 2666 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >3 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Silicon	ppm	ASTM D5185m	>15	8		
Water % ASTM D6304 NEG FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >5000 ▲ 42787 Particles >6μm ASTM D7647 >1300 ▲ 10387 Particles >14μm ASTM D7647 >160 ▲ 266 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Sodium	ppm	ASTM D5185m		0		
FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >5000 ▲ 42787 Particles >6μm ASTM D7647 >1300 ▲ 10387 Particles >14μm ASTM D7647 >160 ▲ 266 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 Δ 23/21/15 FLUID DEGRADATION method limit/base current history1 history1 history1	Potassium	ppm	ASTM D5185m	>20	3		
Particles >4μm ASTM D7647 >5000 ▲ 42787 Particles >6μm ASTM D7647 >1300 ▲ 10387 Particles >14μm ASTM D7647 >160 ▲ 266 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Water	%	ASTM D6304		NEG		
Particles >6μm ASTM D7647 >1300 Δ 10387 Particles >14μm ASTM D7647 >160 Δ 266 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 Δ 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 ▲ 266 Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 history1 history1	Particles >4µm		ASTM D7647	>5000	42787		
Particles >21μm ASTM D7647 >40 38 Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >38μm ASTM D7647 >10 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 23/21/15 FLUID DEGRADATION method limit/base current history1 history1 history1	Particles >14μm		ASTM D7647	>160	266		
Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/21/15 FLUID DEGRADATION method limit/base current history1 history1	Particles >21μm		ASTM D7647	>40	38		
Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/21/15 FLUID DEGRADATION method limit/base current history1 history	Particles >38μm		ASTM D7647	>10	1		
Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 23/21/15 FLUID DEGRADATION method limit/base current history1 history	Particles >71μm		ASTM D7647	>3	0		
•					23/21/15		
Acid Number (AN) mg KOH/g ASTM D8045 1.63	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		1.63		



OIL ANALYSIS REPORT





Certificate 12367

Sample No.

Laboratory

Lab Number : 06159543

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TLC0001649 Unique Number : 10994966

Received **Tested**

: 26 Apr 2024 : 26 Apr 2024 - Jonathan Hester Diagnosed

: 24 Apr 2024

Test Package: PLANT (Additional Tests: FT-IR, ICP-NewOil, KV100, VI) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

SUPPLY PRO 115 EMPIRE WAY

ATLANTA, GA

US 30354 Contact: MICHAEL JACKSON mjackson@supplypro1.com

T: (470)991-1693

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)