

# **OIL ANALYSIS REPORT**

# KANSAS/44 Machine Id 87.18L [KANSAS^44]

Component

**Middle Final Drive** 

MOBIL MOBILUBE HD 85W140 (--- GAL)

# Sample Rating Trend DIRT Ne/2021

### DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

## Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

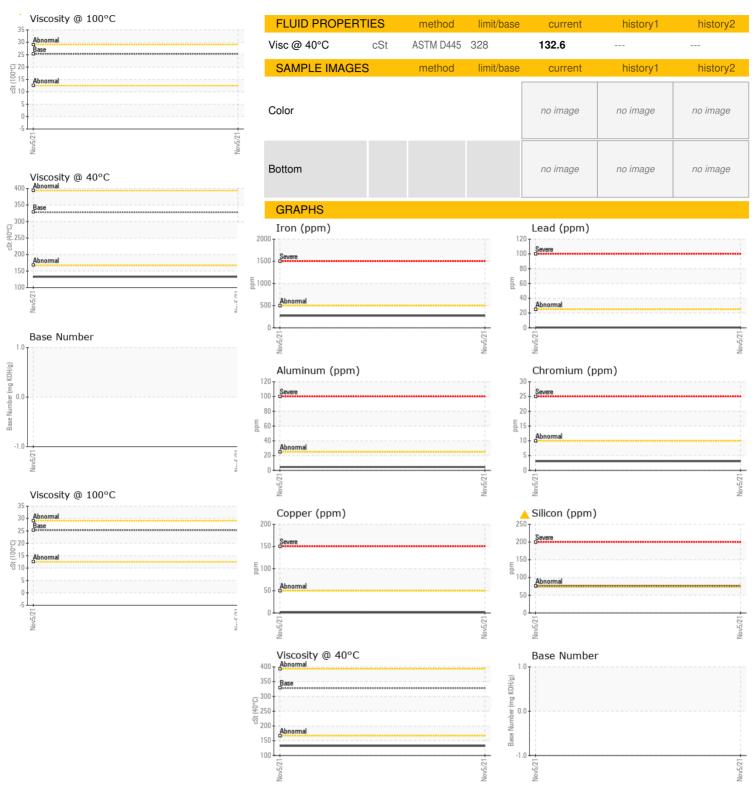
### **Fluid Condition**

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0598590		
Sample Date		Client Info		05 Nov 2021		
Machine Age		Client Info		1178		
Oil Age		Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	273		
Chromium	ppm	ASTM D5185m	>10	3		
Nickel	ppm	ASTM D5185m		<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	5		
Lead	ppm	ASTM D5185m	>25	<1		
Copper	ppm	ASTM D5185m	>50	1		
Tin	ppm	ASTM D5185m	>10	0		
Antimony	ppm	ASTM D5185m		0		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		91		
Barium	ppm	ASTM D5185m		33		
Molybdenum	ppm	ASTM D5185m		4		
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Manganese	mag	ASTM D5185m		4		
Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m		4 46		
Magnesium	ppm	ASTM D5185m		46		
Magnesium Calcium	ppm	ASTM D5185m ASTM D5185m		46 150		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		46 150 940		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		46 150 940 144		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/hacca	46 150 940 144 35480		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	46 150 940 144 35480 current		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		46 150 940 144 35480 current ^ 75	   history1	   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>75	46 150 940 144 35480 current 75		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20	46 150 940 144 35480 current 75 31	   history1 	  history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 limit/base	46 150 940 144 35480 current ▲ 75 31 16	   history1	history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method  *Visual	>75 >20 limit/base NONE	46 150 940 144 35480 current ▲ 75 31 16 current	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual	>75 >20 limit/base NONE NONE	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method  *Visual  *Visual	>75 >20 limit/base NONE NONE NONE	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE NONE	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual  *Visual  *Visual  *Visual	>75 >20 limit/base NONE NONE NONE NONE	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE NONE NONE	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual  *Visual  *Visual  *Visual  *Visual  *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE	46 150 940 144 35480	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	46 150 940 144 35480	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE NONE NONE NONE NONE NONE NO	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m  ASTM U5185m  Method  *Visual  *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE NONE NONE NONE NONE NONE NO	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  VISUAL  White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m  ASTM D5185m  *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	46 150 940 144 35480  current  ▲ 75 31 16  current  NONE NONE NONE NONE NONE NONE NONE NO	history1 history1	history2 history2



# **OIL ANALYSIS REPORT**







Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0598590 Lab Number : 05400704

Unique Number : 9739854

Received **Tested** 

Diagnosed Test Package : MOBCE (Additional Tests: FT-IR, KV100, TBN, VI)

: 19 Nov 2021

: 19 Nov 2021 - Jonathan Hester

: 15 Nov 2021

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST WICHITA, KS

US 67213 Contact: RANDY ROBERTS randy.roberts@sherwood.net

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. T: (316)943-6491 F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)