

#### Machine Id **15419** Component **Front Differential** Fluid **GEAR OIL SAE 75W80 (--- QTS)**

### 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.

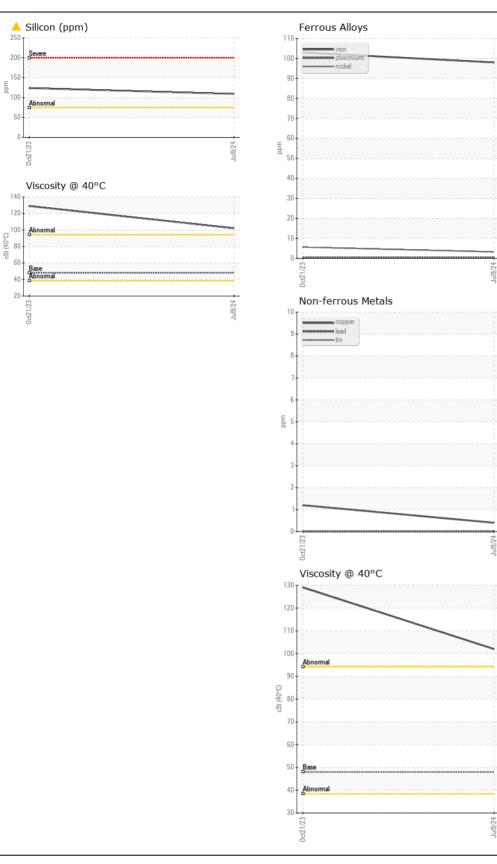
# FLUID CONDITION

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

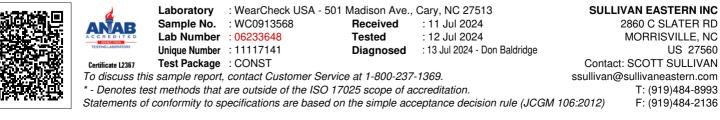
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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0913568	WC0856770	
Sample Date		Client Info		09 Jul 2024	21 Oct 2023	
Machine Age	hrs	Client Info		4768	3368	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Changed	
Filter Changed		Client Info		Changed	Not Changd	
Sample Status				ABNORMAL	ABNORMAL	
Iron	ppm	ASTM D5185m	>500	98	103	
Chromium	ppm	ASTM D5185m	>10	<1	<1	
Nickel		ASTM D5185m	>10	3	6	
	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm			-		
Silver	ppm	ASTM D5185m	05	0	0	
Aluminum	ppm	ASTM D5185m	>25	0	0	
Lead	ppm	ASTM D5185m	>25	0	0	
Copper	ppm	ASTM D5185m	>100	<1	1	
Tin	ppm	ASTM D5185m	>10	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>75	<b>1</b> 09	<b>1</b> 24	
Silicon Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>75 >20	▲ 109 2	▲ 124 2	
Potassium		ASTM D5185m	>20	2	2	
Potassium Water	ppm	ASTM D5185m WC Method	>20 >.2	2 NEG	2 NEG	
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >.2 NONE	2 NEG NONE	2 NEG NONE	
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>20 >.2 NONE NONE	2 NEG NONE LIGHT	2 NEG NONE NONE	
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >.2 NONE NONE NONE	2 NEG NONE LIGHT NONE	2 NEG NONE NONE	
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >.2 NONE NONE NONE NORML	2 NEG NONE LIGHT NONE NORML	2 NEG NONE NONE NONE NORML	   
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >.2 NONE NONE NORML NORML	2 NEG NONE LIGHT NONE NORML NORML NEG	2 NEG NONE NONE NORML NORML NEG	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >.2 NONE NONE NORML NORML >.2	2 NEG NONE LIGHT NORE NORML NEG 3	2 NEG NONE NONE NORML NORML NEG 3	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >.2 NONE NONE NORML >.2	2 NEG NONE LIGHT NORML NORML NEG 3 100	2 NEG NONE NONE NORML NORML NEG 3 262	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >.2 NONE NONE NORML NORML >.2 400 200	2 NEG NONE LIGHT NORML NORML NEG 3 100 0	2 NEG NONE NONE NORML NORML NEG 3 262 <1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >.2 NONE NONE NORML >.2	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >.2 NONE NONE NORML >.2 400 200 12	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1 2	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 2	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >.2 NONE NONE NORML NORML >.2 400 200 12	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1 2 2 <1	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 2 2 0	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;.2</li> <li>400</li> <li>200</li> <li>12</li> <li>12</li> <li>12</li> <li>150</li> </ul>	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1 2 <1 2 <1 17	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 2 2 0 2 1 5	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;.2</li> <li>400</li> <li>200</li> <li>12</li> <li>150</li> <li>1650</li> </ul>	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1 2 <1 2 <1 17 712	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 2 2 0 1 5 974	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >.2 NONE NONE NORML NORML >.2 400 200 12 12 12 150 1650 125	2 NEG NONE LIGHT NONE NORML NORML NEG 3 100 0 <1 2 <1 2 <1 17 2 712	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 262 <1 0 2 5 0 15 974	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;.2</li> <li>400</li> <li>200</li> <li>12</li> <li>150</li> <li>1650</li> </ul>	2 NEG NONE LIGHT NORML NORML NEG 3 100 0 <1 2 <1 2 <1 17 712	2 NEG NONE NONE NORML NORML NEG 3 262 <1 0 2 2 0 1 5 974	

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