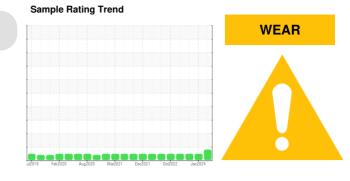


OIL ANALYSIS REPORT





KEMP QUARRIES / HULBERT WL131 Component Front Differential MOBIL MOBILTRANS HD 50 (--- GAL)

DIAGNOSIS	
Recommendation	

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Area

🔺 Wear

Gear wear is indicated. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

Comple Number	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0085909	PCA0109161	PCA0109237
Sample Date		Client Info		06 Apr 2024	27 Jan 2024	03 Nov 2023
Machine Age	hrs	Client Info		11256	10805	10240
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Water		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	513	282	167
Chromium	ppm	ASTM D5185m		1	<1	0
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m		5	2	1
Lead	ppm	ASTM D5185m	>13	ر 1	0	0
Copper	ppm	ASTM D5185m		5	3	3
Tin	ppm	ASTM D5185m	>5	ر 1	0	0
Vanadium	ppm	ASTM D5185m	20	<1	0	0
Cadmium		ASTM D5185m		<1	0	0
	ppm		Day 16.0		-	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		4	5	6
Barium	ppm	ASTM D5185m		<1	5	0
Molybdenum	ppm	ASTM D5185m		2	<1	<1
Manganese	ppm	ASTM D5185m		4	1	<1
Magnesium	ppm	ASTM D5185m		33	32	33
0						
Calcium	ppm	ASTM D5185m		3483	3238	3180
Calcium Phosphorus		ASTM D5185m ASTM D5185m		1067	1016	3180 1027
Calcium	ppm					
Calcium Phosphorus	ppm ppm	ASTM D5185m		1067	1016	1027
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	1067 1333	1016 1233	1027 1229
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base >100	1067 1333 4785	1016 1233 4698	1027 1229 4603
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method		1067 1333 4785 current	1016 1233 4698 history1	1027 1229 4603 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1067 1333 4785 current 41	1016 1233 4698 history1 34	1027 1229 4603 history2 27
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100	1067 1333 4785 current 41 3	1016 1233 4698 history1 34 0	1027 1229 4603 history2 27 2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20	1067 1333 4785 current 41 3 2	1016 1233 4698 history1 34 0 2 2 history1 NONE	1027 1229 4603 history2 27 2 2 0
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 limit/base	1067 1333 4785 current 41 3 2 current	1016 1233 4698 history1 34 0 2 history1	1027 1229 4603 history2 27 2 2 0 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m thothod *Visual	>100 >20 limit/base NONE	1067 1333 4785 current 41 3 2 current NONE	1016 1233 4698 history1 34 0 2 2 history1 NONE	1027 1229 4603 history2 27 2 2 0 history2 NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>100 >20 limit/base NONE NONE	1067 1333 4785 current 41 3 2 current NONE NONE	1016 1233 4698 history1 34 0 2 2 history1 NONE NONE	1027 1229 4603 history2 27 2 2 0 history2 NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE	1067 1333 4785 current 41 3 2 current NONE NONE NONE	1016 1233 4698 history1 34 0 2 2 history1 NONE NONE NONE NONE	1027 1229 4603 27 27 2 0 history2 NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE	1067 1333 4785 current 41 3 2 current NONE NONE NONE NONE MODER	1016 1233 4698 history1 34 0 2 history1 NONE NONE NONE NONE MODER	1027 1229 4603 27 2 2 0 history2 NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE NONE	1067 1333 4785 current 41 3 2 current NONE NONE NONE NONE MODER NONE	1016 1233 4698 history1 34 0 2 history1 NONE NONE NONE MODER NONE	1027 1229 4603 <u>history2</u> 27 2 0 <u>history2</u> NONE NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 Iimit/base NONE NONE NONE NONE NONE	1067 1333 4785 current 41 3 2 current NONE NONE NONE NONE NONE NONE NONE NON	1016 1233 4698 history1 34 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	1027 1229 4603 27 27 2 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NON	1067 1333 4785 current 41 3 2 current NONE NONE NONE NONE NONE NONE NONE NON	1016 1233 4698 history1 34 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	1027 1229 4603 27 27 2 0 <u>history2</u> NONE NONE NONE NONE NONE NONE NONE NON
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NORML NORML	1067 1333 4785 current 41 3 2 current NONE NONE NONE NONE NONE NONE NONE NON	1016 1233 4698 history1 34 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	1027 1229 4603 27 27 2 0 <u>history2</u> NONE NONE NONE NONE NONE NONE NONE NON



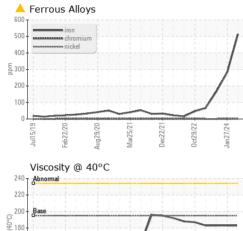
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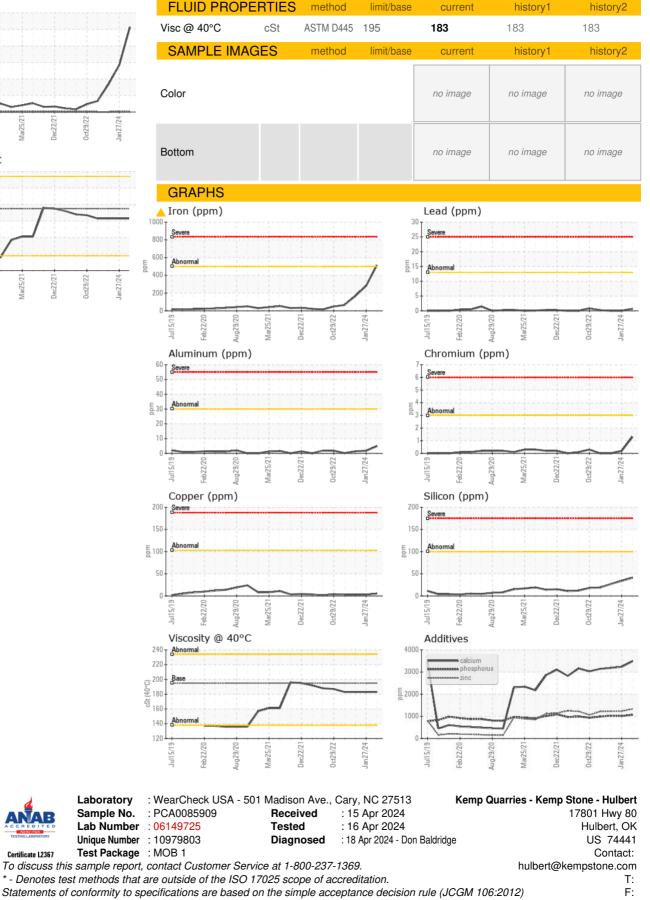


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