

OIL ANALYSIS REPORT

Sample Rating Trend





KEMP QUARRIES / HULBERT WL085

Component Front Differential

MOBIL MOBILTRANS HD 50 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All 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.

	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109246	PCA0061824	PCA0048668
Sample Date		Client Info		11 Nov 2023	08 Nov 2022	11 Feb 2022
Machine Age	hrs	Client Info		28114	27587	27117
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	134	174	108
Chromium	ppm	ASTM D5185m	>3	<1	<1	0
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	1	2	1
Lead	ppm		>13	<1	<1	0
Copper	ppm	ASTM D5185m	>103	2	2	1
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Antimony	ppm	ASTM D5185m	>5			
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
			IIIIIIVDase			
Boron	ppm	ASTM D5185m		1	3	3
Barium	ppm	ASTM D5185m ASTM D5185m		<1 1	0 2	0
Molybdenum	ppm					
1						
-	ppm	ASTM D5185m		1	1	0
Magnesium	ppm	ASTM D5185m ASTM D5185m		1 19	1 31	0
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		1 19 1882	1 31 3079	0 0 3158
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 19 1882 677	1 31 3079 1051	0 0 3158 957
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 19 1882 677 818	1 31 3079 1051 1278	0 0 3158 957 1307
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 19 1882 677	1 31 3079 1051	0 0 3158 957
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 19 1882 677 818	1 31 3079 1051 1278	0 0 3158 957 1307
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m		1 19 1882 677 818 5889 current	1 31 3079 1051 1278 8680	0 0 3158 957 1307 6005 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>100	1 19 1882 677 818 5889 current 16	1 31 3079 1051 1278 8680 history1 23 <1	0 0 3158 957 1307 6005 history2 16
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	>100	1 19 1882 677 818 5889 current	1 31 3079 1051 1278 8680 history1	0 0 3158 957 1307 6005 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>100	1 19 1882 677 818 5889 current 16 0	1 31 3079 1051 1278 8680 history1 23 <1	0 0 3158 957 1307 6005 history2 16 0
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm	ASTM D5185m	>100 >20 limit/base NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE	0 0 3158 957 1307 6005 history2 16 0
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>100 >20 limit/base	1 19 1882 677 818 5889 current 16 0 2	1 31 3079 1051 1278 8680 history1 23 <1 1	0 0 0 3158 957 1307 6005 history2 16 0 0
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m	>100 >20 limit/base NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE	0 0 0 3158 957 1307 6005 history2 16 0 0 history2 NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>100 >20 limit/base NONE NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE	0 0 0 3158 957 1307 6005 history2 16 0 0 history2 NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m Method ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE NONE	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE NONE NONE	0 0 0 3158 957 1307 6005 history2 16 0 0 history2 NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m Method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE NONE NONE MODER	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE NONE NONE NONE	0 0 0 3158 957 1307 6005 history2 16 0 0 history2 NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE NONE NONE	1 19 1882 677 818 5889 current 16 0 2 current NONE NONE NONE NONE NONE NONE NONE	1 31 3079 1051 1278 8680 history1 23 <1 1 history1 NONE NONE NONE NONE NONE NONE	0 0 0 3158 957 1307 6005 history2 16 0 0 history2 NONE NONE NONE NONE

Emulsified Water

*Visual

scalar

scalar *Visual

>.2

NEG

NEG

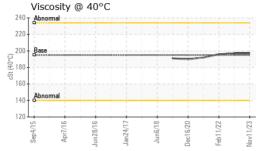
NEG

NEG

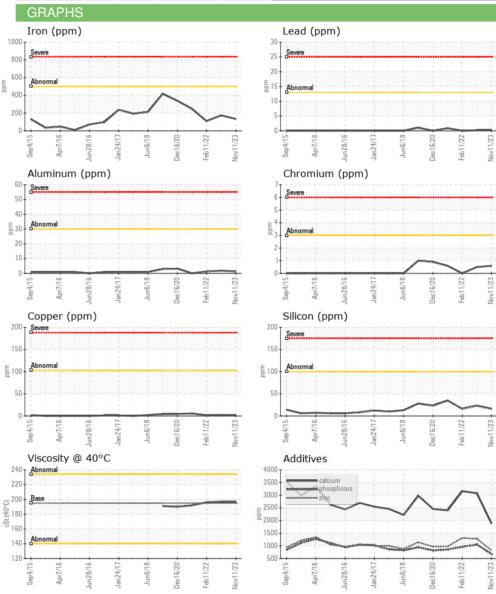
NEG



OIL ANALYSIS REPORT









Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: PCA0109246 : 06017615 : 10756759 Test Package : MOB 1

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Nov 2023 Diagnosed : 29 Nov 2023

Diagnostician : Angela Borella

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)

Kemp Quarries - Kemp Stone - Hulbert

17801 Hwy 80 Hulbert, OK US 74441

Contact:

hulbert@kempstone.com

T:

F: