

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Area KEMP QUARRIES / RIVER VALLEY ARKOMA Machine Id VVL062 Component

Rear Differential

MOBIL MOBILTRANS HD 50 (--- GAL)

		12015 AUG20		May2017 May2019 Jul2021 J		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0084427	PCA0084023	PCA0084236
Sample Date		Client Info		22 Feb 2024	23 Oct 2023	04 Aug 2023
Machine Age	hrs	Client Info		26382	25859	25405
Oil Age	hrs	Client Info		24267	24267	1500
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ATTENTION	ATTENTION	ATTENTION
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	186	163	157
Chromium	ppm	ASTM D5185m	>3	3	2	2
Nickel	ppm	ASTM D5185m	>3	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>30	4	3	4
Lead	ppm	ASTM D5185m		5	3	3
Copper	ppm	ASTM D5185m		47	38	31
Tin	ppm	ASTM D5185m		4	2	2
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	2
Manganese	ppm	ASTM D5185m		2	1	1
Magnesium						
	ppm	ASTM D5185m		21	23	24
Calcium	ppm ppm	ASTM D5185m ASTM D5185m		21 • 345		
					23	24
Phosphorus	ppm	ASTM D5185m		<mark> </mark> 345	23	24 560
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m		345 435	23 425 452	24 560 490
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	 345 435 550 1780 	23 425 452 566	24 560 490 577
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		 345 435 550 1780 	23 425 452 566 1907	24 560 490 577 2463
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		 345 435 550 1780 current 	23 425 452 566 1907 history1	24 560 490 577 2463 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ITS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>100	 345 435 550 1780 current 29 	23 425 452 566 1907 history1 24	24 560 490 577 2463 history2 28
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>100	 345 435 550 1780 current 29 2 <1 	23 425 452 566 1907 history1 24 1	24 560 490 577 2463 history2 28 2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20	 345 435 550 1780 current 29 2 <1 	23 425 452 566 1907 history1 24 1 2	24 560 490 577 2463 history2 28 2 28 2 <1
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ITS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 limit/base	 345 435 550 1780 current 29 2 <1 current 	23 425 452 566 1907 history1 24 1 2 history1	24 560 490 577 2463 history2 28 2 2 <1 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm iTS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m	>100 >20 limit/base NONE	 345 435 550 1780 current 29 2 <1 current NONE 	23 425 452 566 1907 history1 24 1 2 history1 NONE	24 560 490 577 2463 history2 28 2 2 2 3 4 1 history2 NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm TTS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>100 >20 limit/base NONE NONE	 345 435 550 1780 current 29 2 <1 current NONE NONE NONE NONE 	23 425 452 566 1907 history1 24 1 2 history1 NONE NONE	24 560 490 577 2463 history2 28 2 <1 history2 NONE NONE
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	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE	 345 435 550 1780 current 29 2 <1 current NONE 	23 425 452 566 1907 history1 24 1 2 history1 NONE NONE NONE	24 560 490 577 2463 history2 28 2 28 2 c1 history2 NONE NONE NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	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 ASTM D5185m *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE	 345 435 550 1780 current 29 2 <1 current NONE NONE NONE LIGHT 	23 425 425 566 1907 history1 24 1 2 history1 NONE NONE NONE NONE NONE NONE	24 560 490 577 2463 history2 28 2 <1 history2 NONE NONE NONE LIGHT NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	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 ASTM D5185m ASTM D5185m XASTM D5185m *Visual *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE NONE	 345 435 550 1780 current 29 2 <1 current NONE NONE NONE LIGHT NONE 	23 425 425 566 1907 history1 24 1 2 history1 NONE NONE NONE NONE NONE NONE NONE	24 560 490 577 2463 bistory2 28 2 2 4 bistory2 NONE NONE NONE LIGHT
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm F ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 limit/base NONE NONE NONE NONE NONE	 345 435 550 1780 current 29 2 <1 current NONE NONE LIGHT NONE 	23 425 425 566 1907 <u>history1</u> 24 1 2 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NONE	24 560 490 577 2463 bistory2 28 2 2 3 4 bistory2 4 bistory2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Phosphorus Zinc Sulfur CONTAMINAN 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 scalar scalar	ASTM D5185m ASTM D5185m 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 NON	 345 435 550 1780 current 29 2 <1 current NONE NONE LIGHT NONE NORML 	23 425 425 566 1907 <u>history1</u> 24 1 2 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	24 560 490 577 2463 bistory2 28 28 2 3 4 3 4 5 5 7 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Fluic

Wear

All component wear rates are normal.

Contamination

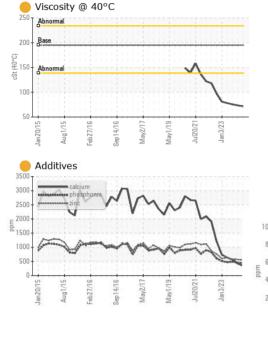
There is no indication of any contamination in the oil.

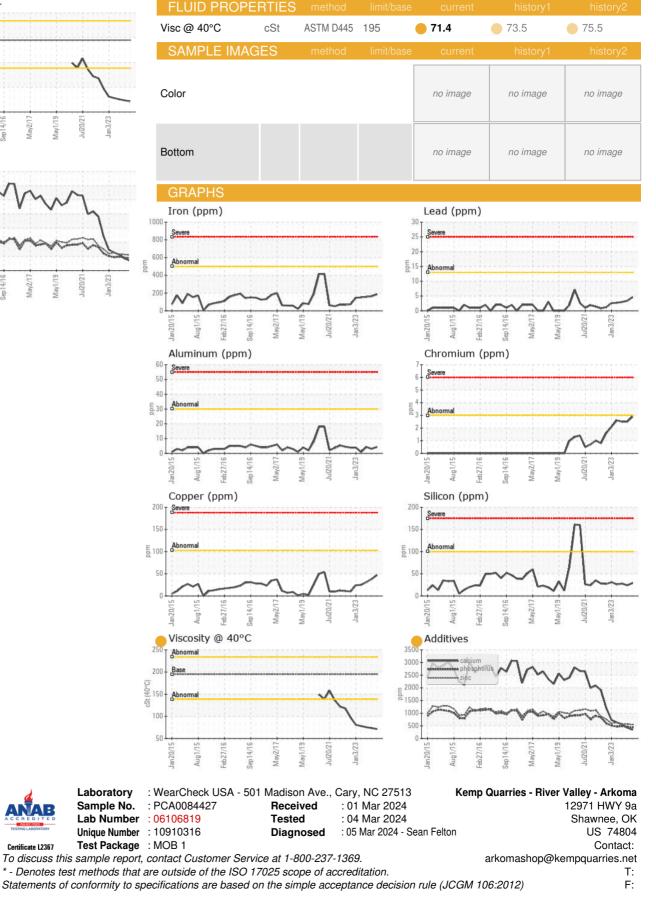
Fluid Condition

The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.



OIL ANALYSIS REPORT





Certificate L2367