

## **OIL ANALYSIS REPORT**

### KEMP QUARRIES / RIVER VALLEY ARKOMA Machine Id WL062

Component Transmission (Manual) Fluid TDTO FLUID SAE 30 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

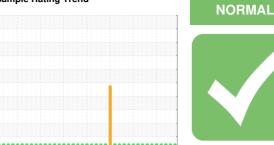
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

#### Fluid Condition

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



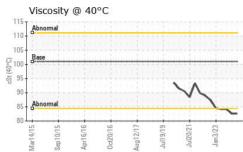
#### r2015 Sep2015 Apr2016 Oct2016 Aug2017 Jul2019 Jul2021 Jan2023

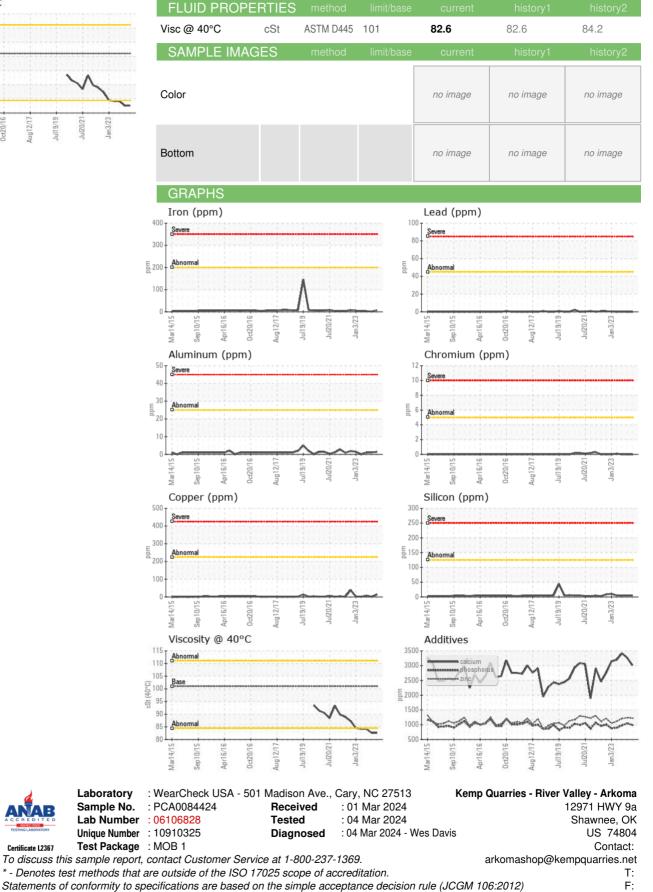
Sample Rating Trend

SAMPLE INFOR	MATION	method	limit/base		history1	history2
Sample Number		Client Info		PCA0084424	PCA0084030	PCA0084241
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				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	7	1	3
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>7	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	1
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>225	13	1	8
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
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	37	6	4	3
Barium	ppm	ASTM D5185m	7	0	0	0
Molybdenum	ppm	ASTM D5185m	5	2	1	2
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	40	22	25	20
Calcium	ppm	ASTM D5185m	2650	3010	3259	3416
Phosphorus	ppm	ASTM D5185m	1050	988	1043	980
Zinc	ppm	ASTM D5185m	1075	1221	1238	1209
Sulfur	ppm	ASTM D5185m				
			5750	4041	4011	4419
CONTAMINAN	ITS	method	limit/base	4041 current	4011 history1	4419 history2
CONTAMINAN Silicon	ITS ppm	method		-		-
		method	limit/base	current	history1	history2
Silicon	ppm	method ASTM D5185m	limit/base >125	current 5	history1 5	history2 4
Silicon Sodium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >125	current 5 2	history1 5 <1	history2 4 1
Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm scalar	method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	limit/base >125 >20 limit/base NONE	current 5 2 0 current NONE	history1 5 <1 <1 history1 NONE	history2 4 1 0 history2 NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual *Visual	limit/base >125 >20 limit/base NONE NONE	current 5 2 0 current NONE NONE	history1 5 <1 <1 <1 history1 NONE NONE	history2 4 1 0 history2 NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE	current 5 2 0 current NONE NONE NONE	history1 5 <1 <1 history1 NONE NONE NONE	history2 4 1 0 history2 NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE	current 5 2 0 current NONE NONE NONE NONE	history1 5 <1 <1 history1 NONE NONE NONE NONE	history2 4 1 0 history2 NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE	current 5 2 0 current NONE NONE NONE	history1 5 <1 <1 history1 NONE NONE NONE	history2 4 1 0 history2 NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE	current 5 2 0 current NONE NONE NONE NONE	history1 5 <1 <1 history1 NONE NONE NONE NONE	history2 4 1 0 history2 NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE NONE	current 5 2 0 current NONE NONE NONE NONE NONE	history1 5 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON	history2 4 1 0 history2 NONE NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE NONE NONE	current 5 2 0 current NONE NONE NONE NONE NONE NONE	history1 5 <1 <1 NONE NONE NONE NONE NONE NONE NONE	history2 4 1 0 history2 NONE NONE NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	current 5 2 0 current NONE NONE NONE NONE NONE NONE NONE NON	history1 5 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON	history2 4 1 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >125 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NORML	Current 5 2 0 Current NONE NONE NONE NONE NONE NONE NONE NORML NORML	history1 5 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON	history2 4 1 0 <u>history2</u> NONE NONE NONE NONE NONE NONE NONE NON



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Certificate L2367