

## **OIL ANALYSIS REPORT**

## KEMP QUARRIES / HULBERT Machine Id OHT049

Rear Right Final Drive

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

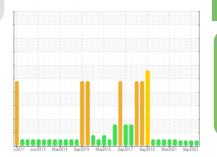
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.



Sample Rating Trend



VISCOSITY

#### SAMPLE INFORMATION method PCA0086128 PCA0061809 PCA0109166 Sample Number **Client Info** 27 Jan 2024 23 Sep 2023 09 Dec 2022 Sample Date Client Info Client Info 8820 Machine Age hrs 9318 7760 Oil Age hrs Client Info 0 0 0 Oil Changed Not Changd Changed Not Changd **Client Info** Sample Status ATTENTION ATTENTION ATTENTION CONTAMINATION NEG Water WC Method >0.2 NEG NEG WEAR METALS ASTM D5185m >800 31 111 128 Iron ppm Chromium ASTM D5185m >10 ppm <1 <1 1 0 2 2 Nickel ppm ASTM D5185m >5 Titanium ASTM D5185m >15 0 <1 <1 ppm 0 0 Silver >2 0 ppm ASTM D5185m Aluminum ppm ASTM D5185m >75 2 2 4 ASTM D5185m >10 0 4 4 Lead ppm 8 42 46 Copper ppm ASTM D5185m >75 2 Tin ASTM D5185m >8 0 2 ppm Vanadium 0 0 0 ppm ASTM D5185m 0 Cadmium 0 ppm ASTM D5185m 0 **ADDITIVES** 2 12 16 Boron ASTM D5185m ppm 5 0 0 Barium ppm ASTM D5185m Molvbdenum ASTM D5185m 3 22 27 ppm ASTM D5185m 0 1 1 Manganese ppm Magnesium ASTM D5185m 65 347 416 ppm Calcium ASTM D5185m 1090 1430 ppm 1281 Phosphorus ASTM D5185m 641 717 855 ppm Zinc ppm ASTM D5185m 769 853 972 Sulfur ASTM D5185m 2770 3789 5485 ppm CONTAMINANTS Silicon ppm ASTM D5185m >400 9 22 24 Sodium ASTM D5185m 0 2 3 ppm Potassium ASTM D5185m >20 2 ppm <1 1 VISUAL White Metal scalar \*Visual NONE NONE MODER MODER Yellow Metal \*Visual NONE NONE NONE NONE scalar NONE \*Visual NONE NONE Precipitate scalar NONE Silt scalar \*Visual NONE NONE NONE NONE Debris \*Visua NONE LIGHT NONE scalar NONE Sand/Dirt scalar \*Visual NONE NONE NONE NONE \*Visual NORML NORML NORML NORML Appearance scalar NORML NORML NORML NORML Odor scalar \*Visual

NEG

NEG

NEG

NEG

**Emulsified Water** 

Free Water

scalar

\*Visual

scalar \*Visual

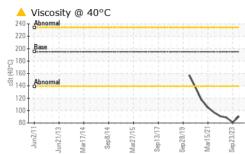
>0.2

NEG

NEG



# **OIL ANALYSIS REPORT**



	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	195	▲ 90.8	▲ 81.0	▲ 88.6
	SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Mar27/15 Sep13/17 Mar15/21 Sep23/23	Color				no image	no image	no image
	Bottom				no image	no image	no image
	GRAPHS						
	Iron (ppm) 2000				Lead (ppm)		
	1500- Severe			-	25 - Severe		
	E 1000 - Abnormal			Ed.	20		
	500-				10 - Abnormal		
		$\sim$	~				$\sim$
	Jun2/11 Jun21/13 Mar17/14 Sep8/14	Mar27/15 Sep13/17	Sep28/19 Mar15/21	Sep 23/23	Jun2/11 Jun21/13 Mar17/14	Sep 8/14 Mar27/15 Sep 13/17	Sep 28/19 Mar15/21 Sen 23/23
	Aluminum (ppm)	2 0,	0, 2		Chromium (		03 2 0.
	200 Severe				25 Severe		
	150-				20		
	Abnormal	:		dd	15 10 Abnormal		
	50				5-		
	Jun2/11 Jun21/13	Mar27/15	Sep28/19 Marl5/21	Sep23/23	Jun2/11	Sep 8/14	Sep 28/19 Marl 5/21
	~ <i>2</i>	Mar2 Sep1	Sep2	Sep2	_ ≥	2 0	Sep2 Mar
	Copper (ppm)		10001000010	10		) 	
	150 -			8	00 -		
	a 100 - Abnormal				00 - 00 - Abnormal		
	50-		$\sim$				
		$\sim$		<u>\</u>	0	A	
	Jun2/11 Jun21/13 Mar17/14 Sep8/14	Mar27/15 Sep 13/17	Sep28/19 Mar15/21	Sep 23/23	Jun2/11 Jun21/13 Mar17/14	Sep 8/14 Mar27/15 Sep 13/17	Sep 2 8/19 Marl 5/21 Sep 2 3/23
	Viscosity @ 40°C	2 0,	0, 2		Additives	2 0	0, 2 0,
	250 Abnormal			35	calcium	1	
	200 - Base			25			$\sim$
	다. 안 150 - <mark>Abnormal</mark> 경		/	툍 20 15			2
	100-					No.	
	20 + 11/2 + 1/13 + 1/14 + 1/14	3/17	3/19		2/11-00	3/14	5/21 5/21
	Jun2/11 Jun21/13 Mar17/14 Sep8/14	Mar27/15 Sep 13/17	Sep28/19 Mar15/21	Sep 23/23	Jun2/11 Jun21/13 Mar17/14	Sep 8/14 Mar27/15 Sep 13/17	Sep 28/19 Mar15/21 Sep 23/23
Laboratory Sample No. Lab Number Unique Number Test Package	: 10863039 : MOB 1	1 Madiso Recei Teste Diagr	i <b>ved</b> :0 ed :0	y, NC 27513 5 Feb 2024 6 Feb 2024 7 Feb 2024 - S	-	Quarries - Kemp	17801 Hwy 8 Hulbert, C US 7444 Contac
discuss this sample report,							kempstone.co

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