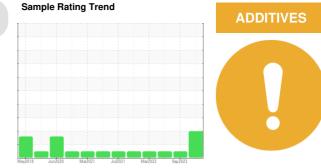


OIL ANALYSIS REPORT



KEMP QUARRIES / HULBERT **OHT097** Component

Hydraulic System

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		PCA0109182	PCA0086799	PCA0061850
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Feb 2024	29 Sep 2023	02 Dec 2022
	Machine Age	hrs	Client Info		35540	35032	34585
Wear	Oil Age	hrs	Client Info		0	34585	0
All component wear rates are normal.	Oil Changed	1115	Client Info		0 Not Changd	Changed	0 Not Changd
Contamination	Sample Status		Client Inio		ATTENTION	NORMAL	NORMAL
There is no indication of any contamination in the oil.	Sample Status				ATTENTION	NORIVIAL	NORIVIAL
Fluid Condition	CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.	Water		WC Method	>0.1	NEG	NEG	NEG
	WEAR META	_S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>20	6	11	14
	Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>10	<1	2	2
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>10	3	3	3
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m	>75	11	6	5
	Tin	ppm	ASTM D5185m	>10	0	<1	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	Cadmium	ppm	ASTM D5185m		0	<1	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	0	<1	2
	Barium	ppm	ASTM D5185m	0	0	9	0
	Molybdenum	ppm	ASTM D5185m	0	5	17	12
	Manganese	ppm	ASTM D5185m		0	0	<1
	Magnesium	ppm	ASTM D5185m	0	68	226	172
							271
	Calcium	ppm	ASTM D5185m		— 195	582	2/1
	Calcium	ppm ppm	ASTM D5185m ASTM D5185m		195 430	582 573	451
	-						
	Calcium Phosphorus	ppm	ASTM D5185m		4 30	573	451
	Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	4305441162	573 680	451 579
	Calcium Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		4305441162	573 680 1851	451 579 1499
	Calcium Phosphorus Zinc Sulfur CONTAMINA	ppm ppm ppm NTS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>20	 430 544 1162 current 	573 680 1851 history1	451 579 1499 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon	ppm ppm ppm NTS	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>20	 430 544 1162 current 4 	573 680 1851 history1 7	451 579 1499 history2 7
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium	ppm ppm ppm NTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>20	 430 544 1162 current 4 <1 <1 	573 680 1851 history1 7 0	451 579 1499 history2 7 <1
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium	ppm ppm ppm NTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20	 430 544 1162 current 4 <1 <1 	573 680 1851 history1 7 0 2	451 579 1499 history2 7 <1 <1
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL	ppm ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>20 >20 limit/base	 430 544 1162 current 4 <1 <1 current 	573 680 1851 history1 7 0 2 history1	451 579 1499 history2 7 <1 <1 <1 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm vTS ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>20 >20 limit/base NONE	 430 544 1162 current 4 <1 <1 current NONE 	573 680 1851 history1 7 0 2 2 history1 NONE	451 579 1499 history2 7 <1 <1 <1 history2 NONE
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm VTS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual	>20 >20 limit/base NONE NONE	 430 544 1162 current 4 <1 <1 current NONE NONE NONE 	573 680 1851 7 0 2 history1 NONE NONE	451 579 1499 history2 7 <1 <1 kistory2 NONE NONE
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm VTS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual *Visual	>20 >20 limit/base NONE NONE NONE	 430 544 1162 current 4 <1 <1 current NONE NONE NONE NONE NONE NONE 	573 680 1851 7 0 2 <u>history1</u> NONE NONE NONE	451 579 1499 history2 7 <1 <1 <1 history2 NONE NONE NONE NONE
	Calcium Phosphorus Zinc Sulfur CONTAMINAL Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm VTS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	 430 544 1162 current 4 <1 <1 current NONE NONE NONE NONE NONE NONE NONE NONE 	573 680 1851 7 0 2 <u>history1</u> NONE NONE NONE NONE NONE	451 579 1499 history2 7 <1 <1 <1 history2 NONE NONE NONE NONE NONE
	Calcium Phosphorus Zinc Sulfur CONTAMINAL Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm vTTS ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	 430 544 1162 current 4 <1 <1 current NONE 	573 680 1851 7 0 2 <u>history1</u> NONE NONE NONE NONE NONE NONE	451 579 1499 history2 7 <1 <1 <1 NONE NONE NONE NONE NONE NONE NONE
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	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 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE	 430 544 1162 current 4 <1 <1 current NONE 	573 680 1851 7 0 2 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NON	451 579 1499 history2 7 <1 <1 history2 NONE NONE NONE NONE NONE NONE NONE NON
	Calcium Phosphorus Zinc Sulfur CONTAMINAI Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Iimit/base NONE NONE NONE NONE NONE NONE NORML NORML	 430 544 1162 current 4 <1 <1 current NONE NORML NORML 	573 680 1851 7 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	451 579 1499 7 <1 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON
	Calcium Phosphorus Zinc Sulfur CONTAMINAI 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 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE	 430 544 1162 current 4 <1 <1 current NONE 	573 680 1851 7 0 2 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NON	451 579 1499 history2 7 <1 <1 history2 NONE NONE NONE NONE NONE NONE NONE NON



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